

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

2/20

Cooperative PLANT PEST REPORT

U.S. DEPARTMENT
OF AGRICULTURE Vol. 5
No. 1

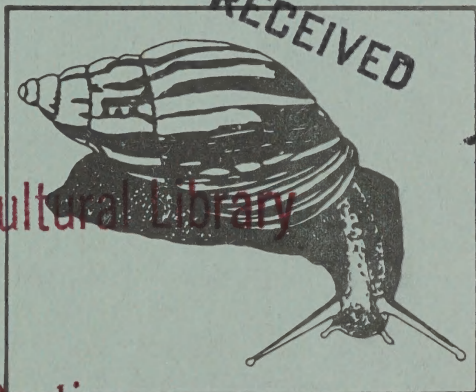
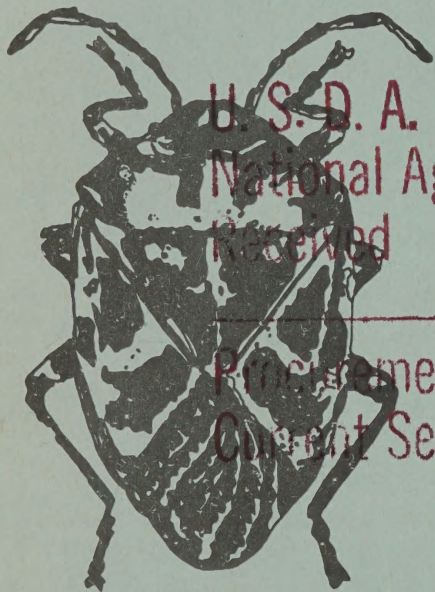
Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY
FEB 13 1980

RECEIVED

U. S. D. A.
National Agricultural Library
Received

Procurement Section
Current Serial Records



METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

COOPERATIVE PLANT PEST REPORT**HIGHLIGHTS**Current Conditions

GREENBUG economic in few small grain fields in California, Texas, Oklahoma, and Mississippi. (p. 4-5).

NEMATODE populations in Wisconsin soybean fields similar for 2 years. (p. 8-9).

DIAMONDBACK MOTH controls ineffective in area of South Carolina. (p. 10).

PECAN WEEVIL eradicated in area of New Mexico. (p. 11).

Predictions

Possible potential for POTATO VIRUS Y infections in Florida. (p. 10).

Winter transmission of BLUEBERRY STUNT VIRUS possible in North Carolina. (p. 12).

SOUTHERN PINE BEETLE infestation may intensify in South Carolina. (p. 13).

Detection

- A TETRANYCHID MITE in Florida (p. 11) and a MEALYBUG in Hawaii (p. 17) are new for the United States.

- A EULOPHID WASP in Hawaii is new for the Western Hemisphere. (p. 17).

New State records include SOUTHERN RUST in Kansas (p. 3), a CHRYSOMELID BEETLE in South Carolina, TAN SPOT in Wisconsin (p. 4), a WEEVIL in North Dakota, an INSECT FUNGUS in Wisconsin (p. 6), WESTERN CORN ROOTWORM in Kentucky (p. 7), CECIDOMYIID MIDGES in Oklahoma (p. 10 and 13), ASPARAGUS APHID in Washington, an APHID in Oklahoma (p. 11), GRAPELEAF SKELETONIZER in Kansas (p. 12), a BRACONID WASP in Indiana (p. 14), and a WEEVIL in South Carolina (p. 19).

New county records on pages 20-21.

New hosts for FALSE ROOT KNOT NEMATODE in California (p. 9), PINEWOOD NEMATODE in Kansas and Missouri (p. 13), and SAN JOSE SCALE in California. (p. 14).

Special Reports

Pest Detection in the United States - 1979. (p. 24-32).

State Survey Coordinators. (p. 33-36).

Cooperative Survey Entomologists. (p. 37-39).

Cooperative Survey Plant Pathologists. (p. 40).

Pests Not Known to Occur in the United States or of Limited Distribution. RASPBERRY BEETLES (Byturus tomentosus Fabricius and Byturus fumatus Fabricius). (p. 41-44).

Reports in this issue are for the weeks ending December 30, 1979, through January 25, 1980, unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		Cole Crops	
Diseases.....	3	Insects.....	10
Insects.....	3		
Small Grains		General Vegetables	
Diseases.....	4	Insects.....	11
Insects.....	4		
Turf, Pastures, Rangeland		Deciduous Fruits and Nuts	
Insects.....	6	Insects.....	11
Forage Legumes		Citrus	
Diseases.....	6	Insects.....	11
Insects.....	6		
Soybeans		Small Fruits	
Diseases.....	8	Diseases.....	12
Insects.....	9	Insects.....	12
Sugar Beets		Ornamentals	
Diseases.....	9	Insects.....	12
Insects.....	9		
Miscellaneous Field Crops		Forest and Shade Trees	
Insects.....	10	Diseases.....	13
		Insects.....	13
Potatoes, Tomatoes, Peppers		Man and Animals	
Diseases.....	10	Insects.....	14
Insects.....	10		
Beneficial Organisms and Their Enemies		Stored Products	
Insects.....	14	Insects.....	14
Federal and State Programs			
Insects.....	17		
Hawaii Pest Report.....	17		
Detection.....	19		
Corrections.....	22		
Light Trap Collections.....	22		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	23		
Pest Detection in the United States - 1979.....	24		
State Survey Coordinators.....	33		
Cooperative Survey Entomologists.....	37		
Cooperative Survey Plant Pathologists.....	40		
Pests Not Known to Occur in the United States or of Limited Distribution.			
RASPBERRY BEETLES (<u>Byturus tomentosus</u> Fabricius and <u>Byturus fumatus</u>			
Fabricius).....	41		

CORN, SORGHUM, SUGARCANE

DISEASES

SOUTHERN RUST (*Puccinia polysora*) - KANSAS - New State record. District> County= collection data from Zea mays (corn): NC> Cloud= collected at Concordia, September 4, 1979, by L.E. Ctaflin, determined by J.S. Melching. (T. Sim, IV).

SORGHUM DOWNY MILDEW (*Peronosclerospora sorghi*) - KANSAS - New county records collected from sorghum in 1979. Prevalences variable in most areas. Estimated loss 1%. (T. Sim, IV).

<u>District> County</u>	<u>Nearest city</u>	<u>Date</u>	<u>Collector and determiner</u>
SC> Pratt	Cullison	Jul 28	G.A. Salsbury
SC> Sedgwick	Colwich	Aug 28	G.A. Salsbury
SC> Stafford	Radium	Aug 20	T. Sim, IV
SC> Harvey	Buhler	Aug 20	T. Sim, IV
C> Rice	Sterling	Aug 20	T. Sim, IV
C> McPherson	Inman	Sep 6	T. Sim, IV
NC> Smith	Gaylord	Sep 2	T. Sim, IV
NC> Cloud	Concordia	Aug 15	T. Sim, IV
NC> Washington	Hollenberg	Sep 5	T. Sim, IV
NC> Clay	Clay Center	Aug 2	T. Sim, IV
EC> Douglas	Lawrence	Sep 19	T. Sim, IV

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - VIRGINIA - Larval survey of corn (100-stalk sample per field) October 31 to December 18, 1979. (J. Despins):

<u>District> County</u>	<u>City</u>	<u>Number of stalks with number of larvae per stalk</u>							<u>Total live larvae per 100 stalks</u>
		0	1	2	3	4	5	6	
W> Augusta	Hanger	63	35	2	0	0	0	0	39
W> Augusta	Porter	70	25	4	1	0	0	0	36
W> Augusta	Wise	49	40	9	1	1	0	0	65
W> Augusta	Wonderly	58	25	14	1	1	0	1	66
C> Bedford	Boone	43	31	20	4	1	1	0	92
C> Bedford	Gaithen	50	30	11	6	1	1	1	85
SW> Montgomery	Blacksburg at university	96	3	1	0	0	0	0	5

SORGHUM WEBWORM (*Celama sorghiella*) - KANSAS - District> County= status of full-grown overwintering larvae in harvested sorghum week ending January 18, 1980: SE> Crawford= light in litter in one field. (L.R. Dinkins).

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) - MISSOURI - New county record. District> County= collection data from Zea mays (corn): E> Perry= adults collected at Perryville, August 22, 1979, by R.E. Munson, determined by W.S. Craig. (R.E. Munson). ILLINOIS - New county records collected from Zea mays (corn) in 1979. All determined by K.D. Black. (K.D. Black).

<u>District> County</u>	<u>Nearest city</u>	<u>Collection date</u>	<u>Collector</u>
SE> Pope	Rosebud	Jul 24	C. Bremer
SE> Massac	Round Knob	Jul 27	C. Bremer
SE> Edwards	Ellery	Jul 31	K.D. Black
SE> Wabash	Browns	Jul 31	K.D. Black
SE> Hardin	Cave in Rock	Aug 13	K.D. Black
SE> Jefferson	Dix	Aug 14	K.D. Black
SW> Johnson	Grantsburg	Jul 25	C. Bremer
SW> Randolph	Stringtown	Aug 1	K.D. Black
SW> Williamson	Bush	Aug 14	K.D. Black
SW> Perry	Cutler	Aug 28	K.D. Black

KENTUCKY - New county record. District> County= western corn rootworm collection data from Zea mays (corn): Midwestern> Daviess= on sweet corn at Whitesville, July 28, 1979, by R.S. Hooten, determined by P.E. Sloderbeck. (P.E. Sloderbeck).

A CHRYSOMELID BEETLE (Paria wilcoxi) - SOUTH CAROLINA - New State record. District> County= collection data from Zea mays (corn): E> Georgetown= on farm near Georgetown, July 12, 1979, by N. Clinkscales, determined by J.A. Wilcox. (R.F. Bollinger).

SMALL GRAINS

DISEASES

TAN SPOT (Pyrenophora trichostoma) - WISCONSIN - New State record. District> County= collection data from Triticum aestivum (wheat): NC> Lincoln= on spring wheat at Merrill, July 27, 1978, by R. Sumnicht, determined by C. Grau. (O.L. Lovett).

INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= average per 0.3 row m of wheat week ending January 18, 1980: WC> Washita= 2 in 1 field. (D.C. Arnold).

GREENBUG (Schizaphis graminum) - CALIFORNIA - District> County= status on barley [tiller] January 3, 1980: Southern California> San Bernardino= infested 24 ha at Chino, about 2 ha (net) lost. (T. Kono). TEXAS - Counts per 0.3 row m of small grains December 7, 1979, to January 7, 1980 (G.C. Moore et al.):

<u>District> County</u>	<u>Counts</u>
Blacklands> Ellis	5-20 in most fields
Blacklands> Ellis	economic in some fields
Northern Low Plains> Wichita	0-1.4
Northern Low Plains> Wichita	0-2
Northern Low Plains> Wichita	0.2-2
Northern Low Plains> Hardeman	0-0.2
Northern Low Plains> Foard	0-0.6
Northern Low Plains> Foard	0-6
Northern Low Plains> Wilbarger	0-5
Northern Low Plains> Wilbarger	0-7

District> County	Counts
Cross Timbers> Archer	0-4.2
Cross Timbers> Archer	0-3
Southern Low Plains> Baylor	0-4.2
Southern Low Plains> Baylor	0-3
Southern Low Plains> Knox	800+ in spots in early fields
Southern Low Plains> Knox	0-4 in later fields

OKLAHOMA - District> County= greenbug counts per 0.3 row m of wheat in number of fields (f), if given, week ending January 11, 1980: NC> Noble= averaged 1 or less in 3 of 5f. Week ending January 18: WC> Beckham= averaged 1,200, 1,000, and 265 in 3f; Custer= 500 in 1f; Washita= 40 in 1f, light in other fields in these counties; SW> Jackson, Greer, Kiowa, and Tillman= averaged 0-5 in 6f, 6-10 in 6f, 11-50 in 4f, and 51-78 in 4f, heavy counts in fields with tight soil and early planted wheat, damage very light in all fields; NC> Major, Kay, Garfield, Noble, and C> Kingfisher= 0-120 in fields, heavier counts in few scattered fields; Logan, NE> Wagoner, and EC> Muskogee= averaged less than 1 in several fields, and SC> Coal= heavy in 1 area. (D.C. Arnold). MISSISSIPPI - District> County= status on winter wheat week ending January 17, 1980: SE and Coastal> Stone= economic in 1 field, treatments applied. (J. Jarratt).

AN APHID (Rhopalosiphum padi) - OKLAHOMA - District> County= status on wheat week ending January 4, 1980: C> Payne= moderate in research plantings in greenhouse at Stillwater. Counts per 0.3 row m of wheat in number of fields (f), if given, week ending January 18, 1980: WC> Beckham= averaged 800 and 100 in 2f, Custer= 480 in 1f, Washita= 20 in 1f, light in other fields in these counties; SW> Jackson, Greer, Kiowa, and Tillman= averaged less than 5, ranged 0-50 in 1f; EC> Muskogee and NE> Wagoner= averaged less than 1 in 7f; and SW> Tillman= averaged 10 in 1 rye field in Tipton area. (D.C. Arnold).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - Counts per 0.3 row m of small grains December 17, 1979, to January 7, 1980. (E.P. Boring, III):

District> County	Counts
Northern Low Plains> Wichita	0.2-0.4
Northern Low Plains> Wichita	up to 1
Northern Low Plains> Wilbarger	0-50
Northern Low Plains> Wilbarger	up to 50
Northern Low Plains> Foard	up to 0.4
Southern Low Plains> Baylor	0-6
Southern Low Plains> Baylor	0-7
Cross Timbers> Archer	0-42
Cross Timbers> Archer	moderate to heavy in early planted fields
Cross Timbers> Archer	0-43

OKLAHOMA - District> County= winter grain mite per 0.3 row m of wheat week ending January 18, 1980: WC> Washita= averaged 4,000 and 200 in 2 fields; Beckham= 15 in 1 field, other fields light in these counties; SW> Greer, Jackson, Kiowa, Tillman, C> Kingfisher, NC> Kay, Noble, Garfield, and Major= 0-200 in fields; few fields treated in north-central and northwestern areas. (D.C. Arnold).

TURF, PASTURES, RANGELAND

INSECTS

A WEEVIL (Thecestermus affinis) - NORTH DAKOTA - New State record. District> County= collection data (no host recorded): SW> Slope= adult collected on rangeland near Burning Coal Vein, June 28, 1978, by L.A. Smith, J.W. Smith, and I.M. Nashnosh, determined by C.W. O'Brien. Numerous vegetation in area, especially Melilotus (sweetclover) and Symphoricarpos (snowberry). (L.A. Smith et al.).

A DIASPIDID SCALE (Aspidiella sacchari) - FLORIDA - New county record. District> County= collection data from Brachiaria mutica (paragrass): S> De Soto= adults on stems of plants at airport at Arcadia, December 28, 1979, collected and determined by Z. Smith; confirmed by A.B. Hamon. Plants at location 1+ years. (Z. Smith).

CHINCH BUG (Blissus leucopterus leucopterus) - KANSAS - District> County= status of overwintering adults in Little bluestemgrass week ending January 18, 1980: NE> Riley= common in some but scarce in other bunches near Riley. (T.M. Mize, G.E. Wilde).

GRASSHOPPERS - MISSOURI - Limited adult survey of mostly Melanoplus sanguinipes, Melanoplus femurrubrum, and Melanoplus differentialis, during August, total of 50 stops, majority in turf and pastures, surveyed in each district. (R.E. Munson).

District	Average per 0.8 sq m	
	Field	Margins
NW	6.56	12.44
NC	8.26	19.34
NE	10.08	21.58
WC	5.62	14.2
C	9.28	20.32
EC	8.34	20.56
SW	6.8	17.86
SC	9.5	16.38
SE	2.52	6.88

FORAGE LEGUMES

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) - WISCONSIN - New State record. District> County= collection data from Hypera postica (alfalfa weevil) larvae on forage: EC> Sheboygan= near Waldo, June 30, 1979, collected by G. Pierce and G. Hoyer, determined by J. Maddox. (O.L. Lovett). Reported as AN INSECT FUNGUS (Entomophthora sp.) in CPPR 4(26):485-486.

INSECTS

ALFALFA WEEVIL (Hypera postica) - OKLAHOMA - District> County= average per 0.09 sq m of alfalfa January 10, 1980: C> Payne= eggs 28 and adults few. (D.C. Arnold). WISCONSIN - District> County= alfalfa stems with eggs in early November: SC> Dane, EC> Door, and SW> Sauk= 50% of collection, egg clusters heaviest in field with much regrowth since last cutting. (O.L. Lovett).

FLORIDA - District> County= alfalfa weevil on alfalfa: C> Alachua at Gainesville= larva 1 and adult 1 per 100 sweeps January 2, 1980, and counts averaged about 1 per 100 sweeps January 7 on half-grown alfalfa; larvae 3 and adults 15 per 100 sweeps (mild winter allowed light increase) January 16 (F.W. Mead); and larva 1 and adults 8 per 30 sweeps January 22 (B. Munir).

EGYPTIAN ALFALFA WEEVIL (*Hypera brunneipennis*) - ARIZONA - District> County= adults per 100 sweeps of alfalfa week ending January 17, 1980: SW> Yuma= 10-210. (P. Gomez et al.).

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) - KENTUCKY - New State record. District> County= collection data from *Medicago sativa* (alfalfa): Purchase> Lyon= 2 adults at Eddyville, July 18, 1979, collected and determined by P.E. Sloderbeck; confirmed by R. White. Visual observation of silking corn in same area negative. (P.E. Sloderbeck).

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= counts per 0.09 sq m of alfalfa week ending January 18, 1980: C> Payne= 1-2 in 1 field. (D.C. Arnold). KANSAS - District> County= larvae (4-12 mm long) per 0.09 sq m of established alfalfa week ending January 18, 1980: SC> Edwards= averaged at least 4 in 1 field, feeding damage slight on green shoots. (G.A. Salsbury).

PEA APHID (*Acyrtosiphon pisum*) - ARIZONA - District> County= immatures and adults per 100 sweeps of alfalfa week ending December 28, 1979: C> Pinal= 116, Maricopa= 64, and SW> Yuma= occasional colony; nymphs and adults per 100 sweeps of alfalfa week ending January 4, 1980: C> Maricopa= 160 and Pinal= 107-120 (F. Brooks et al.); week ending January 10: C> Maricopa= 2,500 and SW> Yuma= few to 1,400 (L. Lee et al.); week ending January 17: C> Pinal= 110-8,400 (P. Gomez et al.); and week of January 24: SW> Yuma= 1,800-2,200 (L. Lee et al.).

NEW MEXICO - District> County= pea aphid nymphs and adults per 25 sweeps of alfalfa week ending December 28, 1979: SE> Dona Ana= 4-100+ in southern area, light in majority of 17 fields, heaviest on seedling alfalfa; status in alfalfa fields week ending January 18, 1980: SE> Dona Ana= very light in southern area, 0-14 aphids per 25 sweeps in 13 fields from La Union to Las Cruces. (G.L. Nielsen).

FLORIDA - District> County= pea aphid counts per 100 sweeps of half-grown alfalfa January 2, 1980: C> Alachua= about 2,600 at Gainesville; nymphs and adults per 100 sweeps of alfalfa January 16: About 4,800 at Gainesville. (F.W. Mead).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - OKLAHOMA - New county records collected from alfalfa in 1979. (D.C. Arnold).

District> County	City	Date	Collector	Determiner
C> Cleveland	Noble	Apr 25	R.C. Berberet	R.C. Berberet
C> Seminole	Little	May 23	R.C. Berberet	R.C. Berberet
C> Okfuskee	Bearden	May 23	R.C. Berberet	R.C. Berberet
EC> Muskogee	Muskogee	May 12	B.G. Hill	D.C. Arnold
SW> Comanche	Lawton	Apr 21	R.C. Berberet	R.C. Berberet
SW> Kiowa	Lone Wolf	Apr 21	R.C. Berberet	R.C. Berberet
SC> Johnston	Mannsville	Apr 26	R.C. Berberet	R.C. Berberet
SC> Marshall	Madill	Apr 26	R.C. Berberet	R.C. Berberet
SE> McCurtain	Harris	Apr 27	J.R. Bolte	D.C. Arnold

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa week ending January 10, 1980: SW> Yuma= 20-800; week of January 24: SW> Yuma= 45-300. (L. Lee et al.); FLORIDA - District> County= counts in 100 sweeps of half-grown alfalfa January 2, 1980: C> Alachua= about 300 at Gainesville; nymphs and adults per 100 sweeps of alfalfa January 16: about 1,300 at Gainesville. (F.W. Mead).

LYGUS BUGS (Lygus spp.) - ARIZONA - District> County= adults per 100 sweeps of alfalfa week ending January 17, 1980: SW> Yuma= 20-120. (P. Gomez et al.). NEW MEXICO - District> County= adults per 25 sweeps of alfalfa week ending December 28, 1979: SE> Dona Ana= 2-9 in 17 fields in southern area. (G.L. Nielsen).

SOYBEANS

DISEASES

NEMATODES - WISCONSIN - Total of 74 soybean fields in 24 counties surveyed September 1979. Composite sample of soil and roots randomly taken in each field. A LESION NEMATODE (Pratylenchus sp.) and a SPIRAL NEMATODE (Helicotylenchus sp.) most common, found in 38% and 37% of soil samples, respectively. A PIN NEMATODE (Paratylenchus sp.), a LANCE NEMATODE (Hoplolaimus sp.), and a DAGGER NEMATODE (Xiphinema sp.) in 14% or less of soil samples. Pratylenchus sp. in 58% of root samples; other plant nematodes in 14% or less of root samples. Heterodera sp. reported in next paragraph. Plant parasitic nematodes recovered from soil generally light, fewer than 50 per sample. Few samples from SW District> Lafayette County and SC District> Rock County contained 200 Helicotylenchus sp. per 100 g of soil, below economic damage threshold. Pratylenchus sp. recovered from 58% of root samples, usually fewer than 50 per g of roots with 100-500+ per g in 7 root samples from 6 counties exceeding economic damage threshold. Other plant parasitic nematodes recovered from root samples less significant than Pratylenchus sp. Nematode populations recovered from samples in 1979 comparable to populations from similar survey in 1978. (O.L. Lovett).

CYST NEMATODES (Heterodera spp.) - WISCONSIN - During 1979, 255 soil samples from 24 counties screened for cyst nematodes in late September and earlier during disease impact survey. SOYBEAN CYST NEMATODE (H. glycines) absent, KNOTWEED CYST NEMATODE (H. weissi), and probably CLOVER CYST NEMATODE (H. trifolii) present. (O.L. Lovett).

District> County	Total samples with <u>Heterodera</u>	Number of samples	Number of cysts	
			<u>H. weissi</u>	<u>H. trifolii</u> (tentative)
SC> Rock	8	25	45	5
SC> Dane	1	5	2	-
SC> Jefferson	1	4	1	-
SC> Columbia	1	4	5	-
SC> Green	1	12	1	-
SC> Dodge	0	2	-	-
SE> Racine	5	25	82	-
SE> Kenosha	8	25	30	-
SE> Walworth	3	25	6	-
SE> Waukesha	1	3	6	-
SE> Milwaukee	1	3	1	-

District> County	Total samples with Heterodera	Number of samples	Number of cysts	
			H. weissi	H. trifolii (tentative)
WC> Dunn	1	4	3	-
WC> St. Croix	1	14	7	-
WC> Trempealeau	16	18	234	-
WC> Pierce	4	12	36	7
WC> Buffalo	4	10	22	2
WC> La Crosse	8	15	87	-
EC> Winnebago	1	4	0	4
EC> Fond du Lac	0	2	-	-
SW> Lafayette	2	3	2	-
SW> Sauk	0	2	-	-
SW> Crawford	5	15	140	1
SW> Grant	4	10	16	-
WC> Pepin	7	13	99	-
Total	83	255	825	19

INSECTS

GRAPE COLASPIS (*Colaspis brunnea*) - ARKANSAS - Summary of overwintering larval surveys in harvested soybean fields. Soil cores (diameter 10 cm) from 12 random sites in each field and processed by wash/brine flotation technique. (M.A. Mayse).

District> County	Larvae per 12 cores at depth of			Number of fields
	0-9 cm	9-18 cm	18-23 cm	
Average (and range) week ending January 4, 1980:				
EC> Lee	0.1 (0-1)	6.0 (0-20)	25.8 (0-45)	8
EC> Arkansas	-	8.9 (0-20)	7.9 (0-26)	7
SE> Desha	0.0	0.0	0.3 (0-2)	8

Total week ending January 11:

EC> Arkansas	-	36	8	1
--------------	---	----	---	---

SUGAR BEETS

DISEASES

FALSE ROOT KNOT NEMATODE (*Nacobbus dorsalis*) - CALIFORNIA - New host record for State. District> County= collection data from *Beta vulgaris* (sugar beets): Central Coast> Monterey= collected in 16-ha field near King City, July 1978, by G.W. Wheatley and E. Parolini, determined by R.T. Robbins, A.C. Weiner, and J.G. Baldwin. Infestation associated with poor beet growth. This native nematode commonly associated with *Erodium* sp. (filaree). Field planted for second year; potatoes previous crop. (A.E. Steele).

INSECTS

LYGUS BUGS (*Lygus* spp.) - ARIZONA - District> County= adults per 25 sugar beet plants week of January 24, 1980: C> Pinal= 1-50. (J. Tanaka, F. Brooks).

MISCELLANEOUS FIELD CROPS

INSECTS

A CECIDOMYIID MIDGE (Asphondylia helianthiglobulus) - OKLAHOMA - New State record. District> County= collection data from flowers of Helianthus divaricatus (a sunflower): SE> Le Flore= at Wister, September 16, 1977, by C.E. Rogers and T.E. Thompson, determined by R.J. Gagne. (D.C. Arnold).

AN APHID (Dactynotus helianthicola) - OKLAHOMA - New county record. District> County= collection data from Helianthus silphioides (a sunflower): SE> Le Flore= at Wister, September 16, 1977, by C.E. Rogers and T.E. Thompson, determined by M.B. Stoetzel. (D.C. Arnold).

POTATOES, TOMATOES, PEPPERS

DISEASES

A ROT (Sclerotinia sp.) - FLORIDA - District> County= status on tomatoes January 14, 1980: S> Dade= light in Homestead area, controls effective when used properly. (K. Pohronezny, J. Francis).

TOMATO MOSAIC VIRUS - FLORIDA - District> County= status on tomatoes January 14, 1980: S> Dade= prevalent in Homestead area. (K. Pohronezny, J. Francis).

POTATO VIRUS Y - FLORIDA - See GREEN PEACH APHID (Myzus persicae) below.

INSECTS

VEGETABLE LEAFMINER (Liriomyza sativae) - FLORIDA - District> County= status on tomatoes January 14, 1980: S> Dade= population pressure heavy due to unseasonably warm weather, adult activity increased within days after last cool period. (K. Pohronezny, J. Francis).

GREEN PEACH APHID (Myzus persicae) - FLORIDA - District> County= status on tomatoes January 14, 1980: S> Dade= unusually early and heavy flights in Homestead area may indicate potential of POTATO VIRUS Y vectored by this aphid. (K. Pohronezny, J. Francis).

COLE CROPS

INSECTS

DIAMONDBACK MOTH (Plutella xylostella) - SOUTH CAROLINA - District> County= larvae on cabbage and collards week ending January 25, 1980: E> Dillon= larvae persists in spite of chemical controls and Bacillus thuringiensis (a larval disease) used over 2-month period. (R.P. Griffin).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - CALIFORNIA - District> County= status of full-grown larvae on napa cabbage week ending January 4, 1980: Central Coast> Monterey= caused about 5% damage in field (about 2-ha) at Salinas. (C.S. Papp).

GENERAL VEGETABLES

INSECTS

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - District> County= larval status per 10 lettuce plants week ending January 17, 1980: SW> Yuma= infested 5-10%. (S. Fenn et al.).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - District> County= larval status per 10 lettuce plants week ending January 17, 1980: SW> Yuma= infested 5-10%. (S. Fenn et al.).

ASPARAGUS APHID (Brachycolus asparagi) - WASHINGTON - New State and county records. District> County= collection data of nymphs and adults from Asparagus officinalis (garden asparagus) fields: C> Benton= at Prosser, September 4, 1979, Yakima= at Outlook, September 25, and EC> Franklin= at Pasco, September 5. All collected by W.W. Cone, determined by M.B. Stoetzel. Stunting of fern growth severe, typical shortening of internodes and stimulation of short growth to produce bonsai effect at ground line. (W.W. Cone).

AN APHID (Dactynotus helianthicola) - OKLAHOMA - New State and county records. District> County= collection data from Helianthus tuberosus (Jerusalem-artichoke): C> Lincoln= at Fowler, September 15, 1977, and EC> Hughes= at Stuart, September 16, 1977. Both collected by C.E. Rogers and T.E. Thompson, determined by M.B. Stoetzel.

DECIDUOUS FRUITS AND NUTS

INSECTS

WINTER MOTH (Operophtera brumata) - OREGON - Flight period ended. County= adult status in unmanaged filbert orchard: Washington= 1 male trapped near Tigard, December 20-26, 1979. Females still caught, very light. Most contained few eggs and seemed to have been emerged for some time. (K. Kimberling, R. Penrose).

PECAN WEEVIL (Curculio caryae) - NEW MEXICO - Eradicated in Tularosa area. District> County= status on pecans week ending January 11, 1980: SE> Otero= no larvae, adults, or damaged pecans noted in commercial and home plantings since 1972. (G. Nielsen).

CITRUS

INSECTS

A TETRANYCHID MITE (Tetranychus mexicanus (McGregor)) - FLORIDA - New United States record. District> County= collection data from Citrus sinensis (sweet orange): S> Martin= few males and females collected from 1 of 4 trees on street corner at Port Salerno, December 28, 1979, by R.D. Gaskalla, determined by H.A. Denmark, confirmed by E.W. Baker. Trees 5-6 years old and established. Delimiting surveys will be undertaken in area. (R.D. Gaskalla). Records from Texas tentative until males confirmed. Known from Argentina at Concordia, Brazil, and Mexico on Annona purpurea, Cedrela mexicana, Citrus, Sorghum halepense (Johnsongrass), and Magnolia grandiflora (southern magnolia). (E.W. Baker).

SMALL FRUITS

DISEASES

BLUEBERRY STUNT VIRUS - NORTH CAROLINA - See A LEAFHOPPER (Scaphytopius magdalensis) below.

INSECTS

GRAPELEAF SKELETONIZER (Harrisina americana) - KANSAS - New State record. District> County= collection data from Vitis sp. (grape): EC> Douglas= eggs and adults moderate on wild grape at Lawrence, August 18, 1979, collected by L.C. Thompson, determined by D.C. Ferguson. (L.C. Thompson, J.W. Johnson).

A LEAFHOPPER (Scaphytopius magdalensis) - NORTH CAROLINA - Area> adult status on blueberry in fall survey in 1979: Southern Coastal Plain> this vector of BLUEBERRY STUNT VIRUS detected in abandoned fields about 2 months later than in previous surveys of commercial fields. Winter transmission of disease possible. (J. Meyer).

ORNAMENTALS

INSECTS

A DIASPIDIID SCALE (Abgrallaspis howardi) - FLORIDA - New county record. District> County= collection data from Yucca aloifolia (Spanish-bayonet): NW> Escambia= infested stems of 5 plants on government property at Pensacola, collected November 20, 1979, by D. Reese, determined by A.B. Hamon. Old plants growing in wild. (D. Reese).

A DIASPIDIID SCALE (Comstockiella sabalis) - FLORIDA - New county record. District> County= collection data from Sabal palmetto (cabbage palmetto): C> Hernando= nymphs and adults infested leaves in city park at Brooksville, January 7, 1980, collected by J.L. Morrison and W.J. Shirley, determined by A.B. Hamon. Palm about 4 years old. (J.L. Morrison, W.J. Shirley).

A DIASPIDIID SCALE (Rhizaspidiotus dearnessi) - FLORIDA - New county record. District> County= collection data from Eupatorium capillifolium (dogfennel): C> Lake= adults on roots of 5 plants along road near Sorrento, December 31, 1979, collected by L. DeWolf and L. Bentley, determined by A.B. Hamon. Plants established 1+ years. (L. DeWolf, L. Bentley).

A DIASPIDIID SCALE (Aonidomytilus solidaginis) - FLORIDA - New county record. District> County= collection data from Eupatorium capillifolium (dogfennel): C> Lake= adults on roots of 5 plants along roadside near Sorrento, December 13, 1979, collected by L. DeWolf and A. Bentley, determined by A.B. Hamon. Plants growing in wild. (L. DeWolf, A. Bentley).

A DIASPIDIID SCALE (Lepidosaphes pallida) - FLORIDA - New county record. District> County= collection data from Juniperus sp. (a juniper): NE> Nassau= adults in nursery at Yulee, December 11, 1979, collected by C. Webb, determined by A.B. Hamon. Plants in nursery 1+ years. (C. Webb).

LATANIA SCALE (*Hemiberlesia lataniae*) - FLORIDA - New county record. District> County= collection data from *Ilex* sp. (a holly) and *Fraxinus pennsylvanica* (green ash): NW> Santa Rosa= moderate on stems of few plants in nursery at Gulf Breeze, December 7, 1979, collected by D. Reese, determined by A.B. Hamon. Plants in nursery 1+ years. (D. Reese).

COCONUT MEALYBUG (*Nipaecoccus nipae*) - FLORIDA - New county record. District> County= collection data from *Butia capitata* (jelly palm): NE> Baker= infestation moderate on stems of 50% of 64 plants at nursery at Glen St. Mary, January 9, 1980, collected by H. Collins and C. Webb, determined by A.B. Hamon. (H. Collins, C. Webb). Palms in nursery 1+ years. (C. Webb).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (*Bursaphelenchus lignicolus*) - KANSAS - New county record and new host record for State. District> County= collection data from *Pinus nigra* (Austrian pine): SE> Crawford= in cemetery at Pittsburg, September 25, 1979, collected and determined by G.A. Clark and M. Robinson. Heavy in 40 to 50-year-old pine that died during summer of 1978 and recently examined for infection. First report of this pine species being destroyed by pinewood nematode in State. (T. Sim, IV). MISSOURI - New host record for State. District> County= collection data from *Pinus ponderosa* (Ponderosa pine): C> Boone= collected on farm, 1.6 km west of Midway on U.S. Highway 40, January 17, 1980, by W. Kearby and A. Foudin, determined by A. Foudin. (A. Foudin).

INSECTS

SOUTHERN PINE BEETLE (*Dendroctonus frontalis*) - SOUTH CAROLINA - Adult activity slowed considerably during November 1979 due to cooler weather. Salvage of beetle-killed timber good in most areas although most blue-stained timber sold as pulpwood regardless of size. Intensified infestation in 1980 possible. Salvage values through November 1979 as follows (M.C. Remion):

<u>Month(s)</u>	<u>Cords</u>	<u>Board feet</u>	<u>Value paid to landowners</u>
Jul-Oct 79	41,288	1,823,641	\$437,535
Nov 79	16,453	298,000	152,779
Total	57,741	2,121,641	\$590,314

A CECIDOMYIID MIDGE (*Cecidomyia resinicola*) - OKLAHOMA - New State record. District> County= collection data from *Pinus echinata* (shortleaf pine): SE> McCurtain= reared from Lowen shortleaf pine at Idabel, March 22, 1979, by C.G. Tauer, determined by R.J. Gagne. (D.C. Arnold).

AN APHID (*Cinara watsoni*) - OKLAHOMA - New county records. District> County= collection data from *Pinus* sp. (a pine): SC> Pontotoc= found entering home from nearby tree at Ada, December 4, 1979, by S. Gregory: SE> Le Flore= heavy at Poteau, January 2, 1980, collected by H.E. Berry. Both determined by D.C. Arnold. Pushmataha= moderate to heavy on shortleaf pines at Antlers. (D.C. Arnold).

A DIASPIDID SCALE (*Acutaspis perseae*) - FLORIDA - New county record. District> County= collection data from *Pinus elliottii* (slash pine): S> Hardee= adults collected at Lemon Grove, October 22, 1979, by J. Felty, determined by A.B. Hamon. Host in wild 7-10 years. (J. Felty).

ASIATIC OAK WEEVIL (*Cyrtepidomus castaneus*) - MISSOURI - New county records. District> County= adults collected from oak: NC> Adair= at Kirksville, August 29, 1979, Schuyler= at Greentop, August 30, NE> Scotland= at Memphis, August 30, and Knox= at Edina, August 30. All collected by R.E. Munson and determined by W.S. Craig. (R.E. Munson).

SAN JOSE SCALE (*Quadraspidiotus perniciosus*) - OKLAHOMA - New host record for State. District> County= collection data from *Albizia julibrissin* (mimosa): C> Oklahoma= heavy at residence at Oklahoma City, January 11, 1980, collected by J. Igleheart, determined by D.C. Arnold. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (*Haematobia irritans*) - FLORIDA - District> County= average per head of beef in small herd: C> Alachua at Micanopy= 32, December 21, 1979 (D. Simon); 32 adults January 2, 1980 (D.W. Boyd); 20, January 9; 22, January 15, population not yet decreased to zero count this winter due to milder temperatures than usual, no hard freezes; and 34, January 23. (D.K. Simon).

EAR TICK (*Otobius megnini*) - OKLAHOMA - New county record. District> County= collection data from human: C> Oklahoma= nymph taken from ear of child at Edmond, January 16, 1980, collected and determined by R.L. Chada. (D.C. Arnold).

AN IXODID TICK (*Ixodes texanus*) - OKLAHOMA - New county record. District> County= collection data from *Procyon lotor* (raccoon): SE> Le Flore= larva 1, nymphs 11, males 2, and female 1 at ranch, 10 km southeast of Poteau, July 12, 1979, by H.G. Koch, determined by T. Keirans. (D.C. Arnold).

STORED PRODUCTS

INSECTS

INDIAN MEAL MOTH (*Plodia interpunctella*) - SOUTH CAROLINA - District> County= larvae of this species and ALMOND MOTH (*Ephestia cautella*) per sq m of surface grain week ending January 18, 1980: C> Lee= about 75-100 in 6,000-bu bin of corn at Bishopville. (P.M. Horton).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

A BRACONID WASP (*Microctonus colesi*) - INDIANA - New State record. District> County= collection data from *Hypera postica* (alfalfa weevil) adult on alfalfa: SC> Harrison= in Spencer Township near Corydon, April 1-2, 1979, by R.W. Meyer, determined by R.J. Dysart. Wasp reared by R.G. Bingham. (R.W. Meyer).

AN ICHNEUMONID WASP (Bathyplectes anurus) - KENTUCKY - New county records.
Collected from Hypera postica (alfalfa weevil) larvae on alfalfa in 1979,
determined by J.C. Parr. (P.E. Sloderbeck).

<u>District> County</u>	<u>City</u>	<u>Collection date</u>	<u>Collector</u>
C> Adair	Columbia	Apr 24	P.E. Sloderbeck
Bluegrass> Anderson	Lawrenceburg	May 10	P.E. Sloderbeck
Bluegrass> Spencer	Taylorsville	Apr 27	C.M. Christensen
Bluegrass> Woodford	Versailles	May 10	P.E. Sloderbeck

Parasitism by B. anurus 0.3-8.5% (averaged 1.5%) in 9 of 25 H. postica larval
samples taken between April 24 and May 22, 1979, representing 23 counties.
Asterisk indicates B. anurus releases in April. (P.E. Sloderbeck).

<u>District> County</u>	<u>H. postica emerged from sample</u>	<u>B. anurus in sample (%)</u>	<u>Collection date</u>
C> Adair	558	0.4	Apr 24
C> Hardin	846	0.6	Apr 27
C> Barren	444	0	Apr 26
C> Butler	274	0	May 16
C> Marion	291	0	May 15
C> Nelson	681	0	Apr 26
Purchase> Hickman	664	0	May 16
Bluegrass> Anderson	117	0.8	May 10
Bluegrass> Fayette	172	8.5	May 2
Bluegrass> Fayette	211	0	May 22
Bluegrass> Franklin	38	0	May 10
Bluegrass> Garrard	968	0	Apr 24
Bluegrass> Lincoln	758	0	Apr 24
Bluegrass> Scott	56	0	May 10
Bluegrass> Shelby	194	1.0	Apr 25
Bluegrass> Spencer	1187	0.3	Apr 27
Bluegrass> Washington	1148	0	Apr 26
Bluegrass> Woodford	152	1.1	May 10
Midwestern> Caldwell	133	0	Apr 27
Midwestern> Hopkins	270	0	May 10
Midwestern> Logan*	750	0	Apr 26
Midwestern> Simpson*	565	0.5	Apr 26
Midwestern> Todd*	144	0.7	Apr 26

INDIANA - New county records for B. anurus. Reared from Hypera postica
(alfalfa weevil) larvae collected from alfalfa during 1979. Collected and
determined by R.W. Meyer. (R.W. Meyer).

<u>District> County</u>	<u>Nearest city</u>	<u>Collection date</u>
C> Johnson	Mount Pleasant	May 9
SE> Franklin	Cedar Grove	May 14
SC> Orange	Orleans	Apr 22

AN ICHNEUMONID WASP (Bathyplectes curculionis) - KENTUCKY - New county records.
Collected from Hypera postica (alfalfa weevil) larvae during May 1979, by P.E.
Sloderbeck, determined by J.C. Parr. (P.E. Sloderbeck).

District> County	City	H. postica host	Collection date
C> Butler	Tilford	Sweetclover	May 16
C> Marion	Lebanon	Alfalfa	May 15
Purchase> Carlisle	Milburn	Sweetclover	May 16
Bluegrass> Anderson	Lawrenceburg	Alfalfa	May 10
Bluegrass> Franklin	Frankfort	Alfalfa	May 10
Midwestern> Hopkins	St. Charles	Sweetclover	May 16

B. curculionis parasitism 0-18.5% (averaged 2.9%) in 21 of 25 H. postica larval samples taken between April 24 and May 22, 1979, represented 23 counties. Average substantially below 7.2% in 1978 and well below 13.2% in 1977. (P.E. Sloderbeck).

District> County	H. postica emerged from sample	B. curculionis in sample (%)	Collection date
C> Adair	558	1.2	Apr 24
C> Barren	444	0.2	Apr 26
C> Butler	274	15.7	May 16
C> Hardin	846	1.5	Apr 27
C> Marion	291	18.5	May 15
C> Nelson	681	2.7	Apr 26
Purchase> Hickman	664	5.8	May 16
Bluegrass> Anderson	117	1.7	May 10
Bluegrass> Fayette	172	0	May 2
Bluegrass> Fayette	211	0.9	May 22
Bluegrass> Franklin	38	5.0	May 10
Bluegrass> Garrard	968	1.0	Apr 24
Bluegrass> Lincoln	758	0.1	Apr 24
Bluegrass> Scott	56	1.8	May 10
Bluegrass> Shelby	194	3.0	Apr 25
Bluegrass> Spencer	1187	0	Apr 27
Bluegrass> Washington	1148	1.1	Apr 26
Bluegrass> Woodford	152	1.6	May 10
Midwestern> Caldwell	133	2.2	Apr 27
Midwestern> Hopkins	270	1.1	May 10
Midwestern> Logan	750	0	Apr 26
Midwestern> Simpson	565	1.0	Apr 26
Midwestern> Todd	144	0	Apr 26

AN ICHNEUMONID WASP (Lemophagus curtus) - VIRGINIA - New county record. District> County= collection data from parasitized (6%) Oulema melanopus (cereal leaf beetle) larvae taken in wheat field: N> Rockbridge= in South River Magisterial District, May 31, 1979, by J. Tate, determined by V.E. Montgomery. (T.L. Burger).

EUROPEAN HORNET (Vespa crabro germana) - KENTUCKY - New county record. District> County= collection data: Midwestern> Christian= adult collected near Herndon, October 9, 1979, by B. Sumner, determined by H.G. Raney. (P.E. Sloderbeck).

FEDERAL AND STATE PROGRAMS

INSECTS

CITRUS BLACKFLY (Aleurocanthus woglumi) - FLORIDA - District> County= larvae and pupae on Citrus sp. (citrus) January 10, 1980: S> Dade= heavily infested 30% of leaves of 3 trees at residence at Surfside. (M. Corman, J. Loyd).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States December 9, 1979, to January 19, 1980. Total of 72 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 176 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 77,740,732 as follows: Texas 67,846,332; Arizona, 1,440,000; and California 8,454,400. Total of 1,652,077,131 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

New Western Hemisphere Record. Several dozen specimens of a EULOPHID WASP (Tetrastichus coccinellae Kurdjumov) reared from pupae of Coccinella septempunctata septempunctata (a lady beetle) collected on Amaranthus foliage at Waimanalo, Oahu, April 10, 1979, by L. Rodriguez. Determined by J.W. Beardsley; confirmed by C. Yoshimoto. Well known in Palearctic region. Reported as parasite of C. septempunctata septempunctata and other species in subfamily Coccinellinae and of Chillocorinae in Europe. Not known to date what adverse impact this nonbeneficial parasite will have on C. septempunctata septempunctata, a successful aphid predator in Hawaii. (J.W. Beardsley). Recorded in Austria, Egypt, France, Germany, western Pakistan, Soviet Union, Sri Lanka, Sweden, and the United Kingdom. (E.E. Grissell).

New United States Record. Specimens of a MEALYBUG (Rhizoecus caladii Green) collected on roots of Dieffenbachia at Hilo, Hawaii Island, during December 1978, by S. Matayoshi, determined by J.W. Beardsley; confirmed by D. Williams. Recorded from Dutch Guiana and Surinam on Caladium bicolor and Coffea arabica (coffee). (J.W. Beardsley). British Museum contains specimens from many grass species. (D. Williams).

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) surveys in December 1979 on Maui showed light infestations on tomato at Pulehu and moderate infestations at lower Omapio. At Kona, Hawaii Island, during same period, losses severe on tomato, and damage moderate at Ka'u, Hawaii Island. (N. Miyahira, E.R. Yoshioka). Infestations and damage moderate to heavy on 0.2 ha of tomato at 365.8-m elevation at Kona, about 30-40% of fruits discarded due to damage, week ending December 28. (S. Matayoshi et al.).

Infestations and damage by DIAMONDBACK MOTH (Plutella xylostella) larvae heavy on 0.1 ha of daikon at Manoa, Oahu, about 2 larvae per leaf on all leaves week ending January 11, 1980. BEET ARMYWORM (Spodoptera exigua) infestations and damage heavy on 0.1 ha of green onion at Manoa. (G. Taniguchi).

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) heavy on 0.1 ha of tomato at Waianae, Oahu, week ending January 25, 1980.

Ornamentals - Populations of a WHITEFLY (Aleurodicus dispersus) sharply decreased due to severe winds and rain during early January 1980 on Oahu. Since infestations more widely and evenly distributed to date compared with infestations in January 1979, more economic problems may occur in fall if established. Newly introduced predators ineffective in reducing populations. (K.K. Teramoto et al.).

Turf and Pastures - Infestations by larvae of GEOMETRID MOTHS (Semiothisa santaremaria and Anacamptodes fragilaria) moderate in koa-haole pastures in west Kauai, during December 1979, occasionally heavily infested spots. Both appeared to be in equal numbers. Conditions similar on koa-haole at Kukuiula and Paipu, Kauai. (D.T. Sugawa).

Man and Animals - AN ANT (Anoplolepis longipes) annoyed residents at Hilo, Puna, and Kapoho, Hawaii Island, infestation heavy at these locations during December 1979. (E.R. Yoshioka).

Trapping data for a NITIDULID BEETLE (Carpophilus humeralis) showed heaviest activity in December 1979 compared with previous 5 months on western Maui. In December, trap catches increased 71% over trap catches in November. December trap catches represented 74% increase over October catches. Averaged 5,465 (98.8%) C. humeralis adults, 22 (0.4%) DRIEDFRUIT BEETLE (Carpophilus hemipterus) adults, and 42 (0.8%) adults of a NITIDULID BEETLE (Haptoncus sp.) per trap. (N. Miyahira).

WESTERN YELLOWJACKET (Vespula pensylvanica) adults heavy at Lanaihale and Lanai City, Lanai, week ending December 28, 1979. (P. Conant). Workers invaded deteriorating Apis mellifera (honey bee) hive (previously invaded by GREATER WAX MOTH (Galleria mellonella)), at Kula at 914.4-m elevation, Maui, week ending January 25, 1980. No wasps noted entering nearby healthy honey bee hive. (N. Miyahira, R.A. Heu).

Beneficial Insects - LANTANA DEFOLIATOR CATERPILLAR (Hypena strigata) and LANTANA STICK CATERPILLAR (Neogalea esula) active on weedy lantana at Kamilo near South Point on Hawaii Island. Lantana appeared heavily infested and completely defoliated in some areas during December 1979 surveys. (E.R. Yoshioka).

Snail Pest - BROWN GARDEN SNAIL (Helix aspersa) increased 3.7 times compared with 1978 in infested areas of Waimea, Hawaii Island. Between January to October 1978, a total of 1,025 snails recovered from containment site but 3,763 snails collected in 1979. Treatments discontinued in 1978 following suspension of eradication effort. (L.M. Nakahara). Total of 269 snails (6-31 mm) recovered at Waimea, during December 1979. (R. Kami).

Plant Disease - During December 1979, 50,000+ commercial and backyard trees inspected for PAPAYA MOSAIC VIRUS on Kauai, Oahu, Maui, and Hawaii Islands. Total of 493 trees destroyed or marked for removal by owners on Oahu and Hawaii. No diseased trees detected for third year on Kauai and Maui Islands. (T.M. Watanabe).

DETECTION

NEW WESTERN HEMISPHERE RECORD

INSECTS

A EULOPHID WASP (Tetrastichus coccinellae Kurdjumov) - HAWAII - Oahu Island. (p. 17).

NEW UNITED STATES RECORDS

INSECTS

A MEALYBUG (Rhizoecus caladii Green) - HAWAII - Hawaii Island. (p. 17).

A TETRANYCHID MITE (Tetranychus mexicanus (McGregor)) - FLORIDA - Martin County. (p. 11).

NEW STATE RECORDS

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) - WISCONSIN - Sheboygan County. (p. 6).

SOUTHERN RUST (Puccinia polysora) - KANSAS - Cloud County. (p. 3).

TAN SPOT (Pyrenophora trichostoma) - WISCONSIN - Lincoln County. (p. 4).

INSECTS

AN APHID (Dactynotus helianthicola) - OKLAHOMA - Lincoln County. (p. 11).

ASPARAGUS APHID (Brachycolus asparagi) - WASHINGTON - Benton County. (p. 11).

A BRACONID WASP (Microctonus colesi) - INDIANA - Harrison County. (p. 14).

A CECIDOMYIID MIDGE (Asphondylia helianthiglobulus) - OKLAHOMA - Le Flore County. (p. 10).

A CECIDOMYIID MIDGE (Cecidomyia resinicola) - OKLAHOMA - McCurtain County. (p. 13).

A CHRYSOMELID BEETLE (Paria wilcoxi) - SOUTH CAROLINA - Georgetown County. (p. 4).

GRAPELEAF SKELETONIZER (Harrisina americana) - KANSAS - Douglas County. (p. 12).

A WEEVIL (Anthonomus gularis) - SOUTH CAROLINA - District> County= collection data from weeds: C> Berkeley= on campground near Goose Creek, August 26, 1978, by J.A. Schoenholz, determined by D.R. Whitehead. (R.F. Bollinger).

A WEEVIL (Thecesternus affinis) - NORTH DAKOTA - Slope County. (p. 6).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - KENTUCKY - Lyon County. (p. 7).

NEW COUNTY RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KANSAS - Crawford. (p. 13).

SORGHUM DOWNY MILDEW (Peronosclerospora sorghi) - KANSAS. (p. 3).

INSECTS

AN APHID (Cinara watsoni) - OKLAHOMA - Le Flore and Pontotoc. (p. 13).

AN APHID (Dactynotus helianthicola) - OKLAHOMA - Hughes (p. 11) and Le Flore. (p. 10).

ASIATIC OAK WEEVIL (Cyrtopistomus castaneus) - MISSOURI - Adair, Schuyler, Scotland, and Knox. (p. 14).

ASPARAGUS APHID (Brachycolus asparagi) - WASHINGTON - Yakima and Franklin. (p. 11).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OKLAHOMA - See p. 7.

COCONUT MEALYBUG (Nipaecoccus nipae) - FLORIDA - Baker. (p. 13).

A DIASPIDID SCALE (Abgrallaspis howardi) - FLORIDA - Escambia. (p. 12).

A DIASPIDID SCALE (Acutaspis perseae) - FLORIDA - Hardee. (p. 14).

A DIASPIDID SCALE (Aonidomytilus solidaginis) - FLORIDA - Lake. (p. 12).

A DIASPIDID SCALE (Aspidiella sacchari) - FLORIDA - De Soto. (p. 6).

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - Hernando. (p. 12).

A DIASPIDID SCALE (Lepidosaphes pallida) - FLORIDA - Nassau. (p. 12).

A DIASPIDID SCALE (Mycetaspis defectopalus) - FLORIDA - District> County= collection data from Bumelia lanuginosa (gum bumelia): C> St. Johns= adults on stems of few plants on lot next to resort at St. Augustine, October 23, 1979, by H. Collins and K. Elliott, determined by A.B. Hamon. (F.W. Mead).

A DIASPIDID SCALE (Rhizaspidiotus dearnessi) - FLORIDA - Lake. (p. 12).

EAR TICK (Otobius megnini) - OKLAHOMA - Oklahoma. (p. 14).

EUROPEAN HORNET (Vespa crabro germana) - KENTUCKY - Christian. (p. 16).

AN ICHNEUMONID WASP (Bathyplectes anurus) - INDIANA - Johnson, Franklin, and Orange; KENTUCKY - Adair, Anderson, Spencer, and Woodford. (p. 15).

AN ICHNEUMONID WASP (Bathyplectes curculionis) - KENTUCKY - Anderson, Butler, Carlisle, Franklin, Hopkins, and Marion. (p. 15-16).

AN ICHNEUMONID WASP (Lemophagus curtus) - VIRGINIA - Rockbridge. (p. 16).

AN IXODID TICK (Ixodes texanus) - OKLAHOMA - Le Flore. (p. 14).

LATANIA SCALE (Hemiberlesia lataniae) - FLORIDA - Santa Rosa. (p. 13).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - ILLINOIS - See p. 3-4.

KENTUCKY - Daviess. (p. 3). MISSOURI - Perry (p. 4).

WEEDS

RUSH SKELETONWEED (Chondrilla juncea) - CALIFORNIA - District> County= collection data: NE> Plumas= from roadside near Graeagle, August 20, 1979, by F. Surber and M. Horn, determined by D. Barbe. (C.S. Papp).

OTHER NEW RECORDS

CANADA THISTLE (Cirsium arvense) - CALIFORNIA - New township records. District> County= collection data: NE> Lassen= from roadside 20 km north of Westwood and Plumas= 22 km northwest of Westwood. Both collected August 23, 1979, by R. Keck and J. Thorne, determined by D. Barbe. (C.S. Papp).

DIFFUSE KNAPWEED (Centaurea diffusa) - CALIFORNIA - New township records. District> County= collection data: NE> Lassen= from highway about 26 km west of Susanville and about 28 km north of Westwood, August 22, 1979, by R. Keck and J. Thorne, determined by D. Barbe. (C.S. Papp).

SPOTTED KNAPWEED (Centaurea maculosa) - CALIFORNIA - New township records. District> County= collection data: NE> Plumas= along highway about 6 km south of Chester, August 1, 1979, by M. Horn and R. Keck and another along roadside about 17 km east of Quincy, August 24, by M. Horn and F. Surber; and Lassen= along highway about 30 km north of Westwood, August 22, by J. Thorne and R. Keck. All determined by D. Barbe. (C.S. Papp).

CORRECTIONS

CPPR 4(23):427 and 432 - AN ERIOPHYID MITE (*Eriophyes vagans*) and CPPR 4(27):523 - AN ERIOPHYID MITE (*Eriophyes* n.sp.) - CALIFORNIA - Misidentification. The note represents a new United States record for *Eriophyes spermaphaga* from *Juglans* sp. (T. Kono). Delete last sentence from note on p. 427. This record represents an earlier collection than that for its description by H.H. Keifer in 1979, *Eriophyd Studies* C-17:15.

CPPR 4(26):485-486 - ALFALFA WEEVIL (*Hypera postica*) - WISCONSIN - *Entomophthora* sp. (an insect fungus) in Sheboygan County should be a new State record for *Entomophthora phytonomi* for Sheboygan County. (O.L. Lovett). See page 6, this issue.

CPPR 4(42):820 and 828 - WOOLLY WHITEFLY (*Aleurothrixus floccosus*) - CALIFORNIA - "...San Joaquin Valley> Kern= eggs... at Santa Barbara, collected June 15, 1979, by S. Loyal and F.L. Johnson,..." should read "...Southern California> Santa Barbara= eggs... at Santa Barbara, collected June 4, 1979, by S. Loyal and F.C. Johnson,..."

CPPR 4(42):821 and 827 - A SOFT SCALE (*Pulvinaria mesembryanthemi*) - CALIFORNIA - "...*Carpobrotus edulis* (ice-plant)..." should read "...*Carpobrotus edulis* (Hottentot fig)..."

CPPR 4(42):827 - EUROPEAN HORNET (*Vespa crabro germana*) - KENTUCKY - Change date to September 20, 1975. (P.E. Sloderbeck).

CPPR 4(43):846 - GYPSY MOTH (*Lymantria dispar*) ... WEST VIRGINIA - "...*Quercus* sp. (chestnut oak)..." should read "...*Quercus* sp. (a chestnut oak)..."

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 1/14-20/80, BL - ARMYWORM (*Pseudaletia unipuncta*) 3, BEET ARMYWORM (*Spodoptera exigua*) 1, BLACK CUTWORM (*Agrotis ipsilon*) 3. FLORIDA - Gainesville, 1/17-23/80, BL - Armyworm 1, GRANULATE CUTWORM (*Feltia subterranea*) 7.

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Desti- nation</u>
<u>Coleosporium sp.</u> a rust Det. F. Matthews	uredial on leaves of <u>Dendrobium plants</u> from cargo	Philippines	Los Angeles	J. Dooley	FL
<u>Anthonomus sp.</u> a weevil Det. D.R. Whitehead	adult on bromeliad plants from cargo	Bolivia	Miami	W. Forster	FL
<u>Dichocrocis punctiferalis</u> a pyralid moth (Guenée) Det. D.M. Weisman	larval in seeds of <u>Castanea</u> from baggage	Korea	Los Angeles	J. Webber	--
<u>Duplaspidiotus sp.</u> a diaspidid scale Det. S. Nakahara	adult on leaves of orchid plants from cargo	Malaysia	San Francisco	S. Waite	PA
<u>Ips typographus japonicus</u> a scolytid beetle Nijima Det. D.M. Anderson	adult in dunnage	Japan	San Francisco	D. Wong	CA
<u>Lepidosaphes laterochitina</u> a diaspidid scale (Green) Det. S. Nakahara	adult on leaves of orchid plants from cargo	Philippines	Los Angeles	J. Dooley	CA
<u>Neoleucinodes elegantalis</u> (Guenée) a pyralid moth Det. D.M. Weisman	larval in eggplants from baggage	Belize	Miami	M. McCarty	FL
<u>Orchamoplatus mammaeferus</u> (Q&B) a whitefly Det. R. Kunishi	pupal on leaves of <u>Codiaeum</u> from baggage	Hawaii	Honolulu	R. Kunishi	CA

PEST DETECTION IN THE UNITED STATES - 1979

There were 13 new United States records reported in the "Cooperative Plant Pest Report" during 1979. These records included 8 insects, 1 mite, 1 disease, and 3 weeds. Eight pests were reported for the first time on the North American continent--3 in California, 2 in Florida and 1 each in Michigan, Missouri, and Pennsylvania. None of the species reported in Hawaii is known from the continental United States. There were 74 new State distribution records, 20 diseases, and 54 insects and other arthropods.

NEW UNITED STATES RECORDS

<u>State</u>	<u>County or Island</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPPR Page</u>	<u>Economic Importance</u>
MI	St. Clair	-	<u>Claviceps purpurea</u>	844	Beneficial
HI	Oahu	Columbia, Martinique, Trinidad	<u>Anthurium</u> sp.	9	Probably noneconomic
MO	Boone	France, Japan	<u>Pinus nigra</u>	207	Economic
FL	Dade	Fiji, Hawaii, Mexico, Micronesia, Philippines, Taiwan, West Indies,	<u>Furcraea</u> sp.	64	Economic
HI	Oahu	Caroline, Djawa, Philippines, Solomons	Light traps	66	Probably noneconomic

Acylomus n.sp.
a phalacrid beetle
Det. W. Steiner

Aleurotulus sp.
a whitefly 3/
Det. S. Nakahara

Bursaphelenchus lignicolus
Mamiya & Kiyohara
pinewood nematode 1/
Det. V. Dropkin
conf. Y. Mamiya, W. Friedman

Dysmicoccus neobrevipes
Beardsley
a mealybug 4/
Det. D.R. Miller

Elasmolomus v-album (Stal)
a lygaeid bug 1/
Det. J.L. Herring

<u>State</u>	<u>County or Island</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPPR Page</u>	<u>Economic Importance</u>
Eriophyes spermaphaga Keifer, n.sp. an eriophyid mite Det. T. Kono conf. H.H. Keifer	CA	-	Juglans sp.	5(1): 22	Probably economic
Lycium ferocissimum Miers an African boxthorn 2/ Det. T.C. Fuller	CA	New Zealand South Africa	-	56	Economic
Piptochaetium stipoides (Trin. & Rupr.) Hack. ex Arech. var. purpurascens (Hack.) Parodi a ricegrass 2/ Det. B. Rošengurt	CA	Argentina, Uruguay	-	345	Probably noneconomic
Pseudaonidia trilobitiformis (Green) a diaspidid scale 4/ Det. A. Hamon	FL	Africa, Asia, Australia, Central America, Puerto Rico, South America	Mangifera indica	750	Economic
Psylliodes picina (Marshall) a chrysomelid beetle 1/ Det. E.R. Hoebeke conf. S.L. Shute	PA	Europe	Zea mays	202	Probably noneconomic
Rhizococcus hibisci Kawai & Takagi a mealybug 1/ Det. E.J. Hambleton	FL	Japan	Cryptanthus sp.	6	Probably noneconomic

<u>State</u>	<u>County or Island</u>	<u>Probable Origin</u>	<u>Collected on</u>	<u>CPR Page</u>	<u>Economic Importance</u>
<u>Striga gesnerioides</u> (Willdenow) <u>Vatke</u> cowpea witchweed <u>1/</u> Det. R.P. Wunderlin	FL	Polk	Africa through Arabian Penin- sula to India, Cape Verde Islands	84	Economic
<u>Uloma</u> possibly <u>bonzica</u> Marseul a tenebrionid beetle <u>1/</u> Det. T.J. Spilman	HI	Oahu	Dead tree	66	Probably noneconomic

1/ First report for Western Hemisphere.

2/ First time reported from North America.

3/ Not known to occur in continental United States.

4/ New continental U.S. record; known to occur in Hawaii or Puerto Rico.

NEW STATE RECORDS - 1979

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Diseases</u>					
<u>Bursaphelenchus</u>	AR	Baxter	<u>Pinus taeda</u>	A. Foudin	548
<u>lignicolus</u>	IL	Madison	<u>Pinus nigra</u>	R.B. Malek	821
<u>pinewood nematode</u>	KS	Cherokee	<u>Pinus sylvestris</u>	W. Friedman	548
	LA	East Baton Rouge	<u>Pinus elliottii</u>	W. Birchfield	842
<u>Cercospora zeae-maydis</u>	OH	Pickaway	<u>Zea mays</u>	R.E. Hite, E.W. Ellett	809- 810
<u>corn gray leaf spot</u>					
<u>Entomophthora phytonomi</u>	DE	New Castle	<u>Hypera postica</u>	W.H. Day; D.G. Harcourt	822
<u>an insect fungus</u>	MI	Berrien	<u>Hypera postica</u>	W.H. Day; D.G. Harcourt	822
	NJ	Burlington	<u>Hypera postica</u>	W.H. Day; D.G. Harcourt	822
	PA	Chester	<u>Hypera postica</u>	W.H. Day; D.G. Harcourt	822
	WI	Sheboygan	<u>Hypera postica</u>	J. Maddox	5(1):6
<u>Gloeocercospora sorghi</u>	OH	Scioto	<u>Sorghum bi- color</u>	R.E. Hite; C.W. Ellett	3
<u>zonate leaf spot</u>					
<u>Heterodera amaranthi</u>	KS	Franklin	<u>Amaranthus retroflexus</u>	A.M. Golden	115
<u>a cyst nematode</u>					
<u>Heterodera glycines</u>	IA	Winnebago	<u>In soil of Glycine max field</u>	D. Williams, C.R. Stoltenow; W. Friedman	5
<u>soybean cyst nematode</u>					
<u>Pellicularia koleroa</u>	KY	Knox	<u>Malus sylves- tris, Lonicera japonica, Rosa sp., Viburnum sp.</u>	J.R. Hartman	841
<u>thread blight</u>					

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Puccinia melanocephala</u> sugarcane rust	LA	Iberia	<u>Saccharum</u> sp.	H. Koike; F.G. Pollack	624
	TX	Willacy	<u>Saccharum</u> sp.	F.G. Pollack	623
<u>Puccinia polysora</u> southern rust	KS	Cloud	<u>Zea mays</u>	J.S. Melching	5(1): 3
	OH	Paulding	<u>Zea mays</u>	R.E. Hite	794
<u>Sclerophthora macrospora</u> crazy top	ND	Cass	<u>Zea mays</u>	V.L. Jons	834
<u>Venturia (Pollaccia)</u> <u>populina</u> (<u>Pollaccia elegans</u> stage) black poplar shoot blight	CA	Contra Costa	<u>Populus</u> sp.	J. Smith	842
<u>Insects and other Arthropods</u>					
<u>Acyrtosiphon kondoi</u> blue alfalfa aphid	MO	Platte	<u>Medicago</u> <u>sativa</u>	M.B. Stoetzel	816
<u>Adelges laricis</u> a phylloxera	ID	Latah	<u>Larix</u> sp., <u>Picea</u> sp.	M.B. Stoetzel	469
<u>Aleuroplatus vaccinii</u> a whitefly	FL	Alachua	<u>Vaccinium</u> sp.	A.B. Hamon	113
<u>Amblytulus nasutus</u> a mirid bug	DE	Sussex	Unknown	E.R. Hoebeke	848
	MD	Baltimore	Unknown	E.R. Hoebeke	848
<u>Anastatus semiflavus</u> a eulpeid wasp	OK	Cimarron	<u>Hemileuca</u> <u>oliviae</u>	E.E. Grissell	81
<u>Brachycolus asparagi</u> an aphid	MO	Gasconade	<u>Asparagus</u> <u>officinalis</u>	M.B. Stoetzel	819

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Braggia uncompahgreensis</u> an aphid	UT	Uintah	<u>Eriogonum</u> sp.	C.F. Smith	826
<u>Braggia urovaneta</u> an aphid	UT	Uintah	<u>Eriogonum</u> sp.	C.F. Smith	848
<u>Ceutorhynchus assimilis</u> cabbage seedpod weevil	TN	Bradley	<u>Brassica</u> <u>oleracea</u> <u>Botrytis</u> & <u>Capitata</u> Groups	D.R. Whitehead	63
<u>Chrysobothris texana</u> a buprestid beetle	KS	Clark	<u>Juniperus</u> <u>virginiana</u>	W.F. Barr	842
<u>Chrysops beameri</u> a tabanid fly	WV	Mason	-	L.L. Pechuman	221
<u>Chrysops celatus</u> a tabanid fly	WV	Summers	-	L.L. Pechuman	221
<u>Cimolus obscurus</u> a coreid bug	OK	Le Flore	Dead tree	D.C. Arnold; J.L. Herring	83
<u>Coccinella</u> <u>septempunctata</u> <u>septempunctata</u> a lady beetle	PA	Pike	Produce farm	E.J. Ford, Jr.	844
<u>Craterocercus obtusus</u> a tenthredinid sawfly	OK	Pontotoc	Unknown	D.R. Smith	83
<u>Dactynotus rudbeckiae</u> goldenglow aphid	OK	Payne	<u>Rudbeckia</u> <u>amplexicaulis</u>	M.B. Stoetzel	75
<u>Dasineura gleditchiae</u> a cecidomyiid midge	OR	Umatilla	<u>Gleditsia</u> <u>triacanthos</u>	R.J. Gagne	822

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Dermatophagoides</u> <u>pteronyssinus</u> European house dust mite	ND	Griggs	Sofa	C.Y. Oseto	843
<u>Dermestes peruvianus</u> a dermestid beetle	IL	Cook	In household	J.K. Bouseman; 287 J.M. Kingsolver	
<u>Dibolia borealis</u> a chrysomelid beetle	ND	Dunn	<u>Plantago major</u>	E. Balsbaugh, 105 Jr.	
<u>Dibolia reyeria</u> a chrysomelid beetle	ND	Grant	<u>Penstemon</u> sp.	E. Balsbaugh, 92 Jr.	
<u>Dichomeris ligulella</u> palmerworm	DE	New Castle	<u>Quercus</u> sp.	F.E. Boys	290
<u>Diprion similis</u> introduced pine sawfly	IA	Fayette	<u>Pinus strobus</u>	J.A. Mertins	842
<u>Ephestia albicostalis</u> a pyralid moth	HI	Oahu	At light	K. Sattler, M. Shaffer	392
<u>Homoeosoma electellum</u> sunflower moth	OR	Gilliam	<u>Helianthus</u> <u>annuus</u>	R.L. Westcott; T.D. Eichlin	80
<u>Hypera castor</u> a weevil	ND	McKenzie	Pit fall trap	D. Aarhus, D.R. White- head	83
<u>Icius hartii</u> an attid spider	FL	Alachua	In building	G.B. Edwards	105
<u>Lemophagus curtus</u> an ichneumonid wasp	MD	Washington	<u>Oulema</u> <u>melanopus</u>	V.E. Montgomery	803
<u>Leptocera vagans</u> a sphaerocerid fly	OK	Texas	Feedlot	G. Steyskal	698

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Lymantria dispar</u> a gypsy moth	WV	Jefferson	<u>Quercus</u> sp.	J.D. Hacker	846
<u>Macrosiphoniella</u> <u>tanacetaria</u> an aphid	OR	Polk	<u>Tanacetum</u> <u>vulgare</u>	R.L. Westcott	40
<u>Masonaphis lambersi</u> an aphid	NH	Strafford	<u>Rhododendron</u> sp.	M.B. Stoetzel	54
<u>Mecas pergrata</u> a cerambycid beetle	ND	McKenzie	<u>Chrysothamnus</u> <u>nauseosus</u>	R.H. Turnbow, Jr.	788
<u>Myrmecocystus romainei</u> an ant	UT	Box Elder	Unknown	A. Francoeur	82
<u>Nematus abbottii</u> a tenthredinid sawfly	OK	Johnston	<u>Robinia</u> <u>pseudoacacia</u>	D.R. Smith	81
<u>Pamphilius amplexus</u> a pamphiliid sawfly	OK	Delaware	In flight	D.R. Smith	83
<u>Pamphilius sitkensis</u> a pamphiliid sawfly	UT	Cache	<u>Rubus</u> sp.	F.D. Parker	81
<u>Phantacrus lobatus</u> an eriophyid mite	CA	Mendocino	<u>Pseudotsuga</u> <u>menziesii</u>	T. Kono	54
<u>Phenacoccus solani</u> a mealybug	OK	Washita	<u>Solanum</u> <u>tuberosum</u>	D.R. Miller	260
<u>Phymata pallida</u> a phymatid bug	OK	Cimarron	Rangeland	N. Kormilev	81
<u>Phirontis modesta</u> a reduviid bug	OK	McCurtain	At light	D.C. Arnold, W.A. Drew	73
<u>Podosesia syringae</u> ash borer	CA	Sacramento	In experimen- tal live trap	T. Eichlin	313

<u>Species</u>	<u>State</u>	<u>County, Island, or Parish</u>	<u>Collected on</u>	<u>Determiner</u>	<u>CPPR Page</u>
<u>Psammotettix</u> <u>emarginatus</u> a leafhopper	CA	Siskiyou	Malaise trap	R. Gill	826
<u>Rhagium inquisitor</u> a cerambycid beetle	OK	Haskell	<u>Pinus echinata</u>	D.C. Arnold	842
<u>Rhantus gutticollis</u> a dytiscid beetle	HI	Maui	Pond	P.J. Spangler	66
<u>Scytodes thoracica</u> a scytodid spider	FL	Alachua	In building	G.B. Edwards	105
<u>Sipha flava</u> yellow sugarcane aphid	NE	Pawnee	<u>Sorghum</u> <u>bicolor</u>	W.S. Craig	836
<u>Stibadium spumosum</u> a noctuid moth	OR	Grant	<u>Helianthus</u> <u>annuus</u>	W.R. Bauer, J.S. Buckett	62
<u>Tabanus cymatophorus</u> a tabanid fly	WV	Hampshire	Malaise trap	L.L. Pechuman	223
<u>Tetrastichus julis</u> a eulophid wasp	NC	Stokes	<u>Oulema</u> <u>melanopus</u>	R. Galloway, V.E. Montgomery	802
<u>Tetyra bipunctata</u> shieldbacked pine seedbug	OK	McCurtain	<u>Pinus</u> sp.	D.C. Arnold	73
<u>Tropisternus</u> <u>salsamentus</u> a hydrophilid beetle	HI	Maui	From reservoir	P.J. Spangler	9
<u>Xylosandrus</u> <u>crassiusculus</u> a scolytid beetle	NC	Richmond	<u>Prunus</u> sp.	D.L. Stephan	237

U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):24-32, 1980

STATE SURVEY COORDINATORS

Alabama	Dr. Kirby L. Hays, Head, Zoology-Entomology Department, Funchess Hall, Auburn University, Auburn, AL 36830 Phone: 205-826-4850
Alaska	Vacant
Arizona	Mr. John A. Bedford, Director, Division of Pest Control, Arizona Commission of Agriculture and Horticulture, Room 421, 1688 W. Adams Street, Phoenix, AZ 85007 Phone: 602-255-4373
Arkansas	Dr. G.J. Musick, Head, Department of Entomology, University of Arkansas, Fayetteville, AR 72701 Phone: 501-575-2451
California	Dr. Carl W. Nichols, Chief of Laboratory Services, Division of Plant Industry, California Department of Food and Agriculture, 1220 N Street, Room 340, Sacramento, CA 95814 Phone: 916-445-4521
Colorado	Mr. William M. Hantsbarger, Department of Zoology and Entomology, Colorado State University, Fort Collins, CO 80523 Phone: 303-491-5945
Connecticut	Mr. George W. Schuessler, Deputy State Entomologist, Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, CT 06504 Phone: 203-789-7236
Delaware	Dr. Dale F. Bray, Head, Department of Entomology and Applied Ecology, University of Delaware, Newark, DE 19711 Phone: 302-738-2526
Florida	Mr. H.L. Jones, Director, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, P.O. Box 1269, Gainesville, FL 32602 Phone: 904-372-3505
Georgia	Mr. Carl M. Scott, Jr., Director, Division of Entomology, Georgia Department of Agriculture, Capitol Square, Room 304, Atlanta, GA 30334 Phone: 404-656-3641
Hawaii	Mr. Larry M. Nakahara, Hawaii State Department of Agriculture, P.O. Box 22159, Honolulu, HI 96822 Phone: 808-548-7123
Idaho	Vacant
Illinois	Vacant
Indiana	Dr. Eldon E. Ortman, Head, Department of Entomology, Purdue University, West Lafayette, IN 47907 Phone: 317-493-9185
Iowa	Dr. Jerald R. DeWitt, 103 Insectary Building, Iowa State University, Ames, IA 50011 Phone: 515-294-1101
Kansas	Dr. Richard J. Sauer, Head, Department of Entomology, Kansas State University, Manhattan, KS 66506 Phone: 913-532-6154

Kentucky Dr. R.A. Scheibner, Extension Specialist, Department of Entomology, University of Kentucky, Lexington, KY 40546
Phone: 606-258-5838

Louisiana Dr. Jerry B. Graves, Head, Department of Entomology, Louisiana State University, Baton Rouge, LA 70803 Phone: 504-388-1634

Maine Dr. Howard Y. Forsythe, Jr., Chairman, Department of Entomology, University of Maine, Orono, ME 04469 Phone: 207-581-7704

Maryland Dr. W.C. Harding, Jr., Extension Entomologist, Department of Entomology, University of Maryland, College Park, MD 20742
Phone: 301-454-3845

Massachusetts Dr. James Kring, Acting Dean and Director, College of Food and Natural Resources, University of Massachusetts, Amherst, MA 01003 Phone: 413-545-2766

Michigan Dr. Stuart H. Gage, Assistant Professor and Extension Specialist, Department of Entomology, Michigan State University, East Lansing, MI 48824 Phone: 517-353-3890

Minnesota Mr. Robert Flaskerd, Director, Division of Plant Industry, 90 West Plato Boulevard, St. Paul, MN 55107 Phone: 612-296-8328

Mississippi Dr. Daniel L. Shankland, Head, Department of Entomology, P.O. Drawer EM, Mississippi State University, Mississippi State, MS 39762 Phone: 601-325-4541

Missouri Dr. W.S. Craig, Extension Entomologist, Department of Entomology, 1-87 Agriculture Building, University of Missouri, Columbia, MO 65211 Phone: 314-882-3446

Montana Dr. Wendell L. Morrill, Agricultural Systems Entomologist, Lewis Hall, Biology Department, Montana State University, Bozeman, MT 59717 Phone: 406-994-2333

Nebraska Dr. Elvis A. Dickason, Head, Department of Entomology, University of Nebraska, Lincoln, NE 68583 Phone: 402-472-2123

Nevada Mr. Phillip C. Martinelli, Director, Division of Plant Industry, Nevada Department of Agriculture, P.O. Box 11100, Reno, NV 89510 Phone: 702-784-6401

New Hampshire Dr. Siegfried E. Thewke, State Entomologist, New Hampshire Department of Agriculture, 106 Nesmith Hall, Durham, NH 03824
Phone: 603-862-2300

New Jersey Dr. Herbert T. Streu, Chairman, Department of Entomology and Economic Zoology, Cook College, Rutgers University, New Brunswick, NJ 08903 Phone: 201-932-9774

New Mexico Mr. Donald D. Lucht, Chief, Division of Plant Industry, New Mexico Department of Agriculture, Box 3BA, Las Cruces, NM 88003 Phone: 505-646-3207

New York	Dr. Edward H. Smith, Department of Entomology, Cornell University, Ithaca, NY 14853 Phone: 607-256-7723
North Carolina	Dr. Gerald T. Weekman, Extension Entomologist, North Carolina State University, P.O. Box 5215, State College Station, Raleigh, NC 27650 Phone: 919-737-2703
North Dakota	Mr. William J. Brandvik, State Entomologist, Department of Agriculture, State Capitol, Bismarck, ND 58505 Phone: 701-224-2232
Ohio	Dr. Robert E. Treece, Ohio Agricultural Research and Development Center, Wooster, OH 44691 Phone: 216-264-2540
Oklahoma	Dr. D.C. Peters, Head, Department of Entomology, Oklahoma State University, Stillwater, OK 74074 Phone: 405-624-5527
Oregon	Mr. B.D. Wright, Assistant Administrator, Plant Division, Oregon State Department of Agriculture, Agriculture Building, 635 Capital, NE., Salem, OR 97310 Phone: 503-378-3776
Pennsylvania	Dr. Ke Chung Kim, The Frost Entomological Museum, Department of Entomology, The Pennsylvania State University, 201 Patterson Building, University Park, PA 16802 Phone: 814-865-1895
Puerto Rico	Dr. Raul Abrams, Director, Agricultural Experiment Station, University of Puerto Rico, Rio Piedras, PR 00928 Phone: 809-765-1995 or 833-3920
Rhode Island	Dr. Rudolph D'Andrea, Chief, Division of Agriculture, Department of Natural Resources, Veterans Memorial Building, Providence, RI 02903 Phone: 401-277-2781
South Carolina	Dr. J.B. Kissam, Professor, Extension Entomology and Economic Zoology, 105 Long Hall, Clemson University, Clemson, SC 29631 Phone: 803-656-3113
South Dakota	Dr. Maurice L. Horton, Head, Plant Science Department, South Dakota State University, Brookings, SD 57006 Phone: 605-688-5121
Tennessee	Mr. Jimmy R. White, Director, Division of Plant Industries, P.O. Box 40627, Melrose Station, Nashville, TN 37204 Phone: 615-741-1551
Texas	Dr. F.G. Maxwell, Head, Department of Entomology, Room 412FA, Soil and Crop Sciences--Entomology Building, Texas A&M University, College Station, TX 77843 Phone: 713-845-2516
Utah	Mr. Reed S. Roberts, Extension Entomologist, Utah State University, Logan, UT 84322 Phone: 801-752-4100, Ext. 7871
Vermont	Mr. Phil R. Benedict, Plant Industry Division, Vermont Department of Agriculture, 116 State Street, State Office Building, Montpelier, VT 05602 Phone: 802-828-2420 or 802-828-2431

Virginia	Dr. S.L. Poe, Head, Department of Entomology, Virginia Poly- technic Institute and State University, Blacksburg, VA 24061 Phone: 703-961-6341
Washington	Dr. E.C. Klostermeyer, Acting Chairman, Department of Entomology, Washington State University, Pullman, WA 99164 Phone: 509-335-5504
West Virginia	Mr. Albert E. Cole, Director, Plant Pest Control Division, West Virginia Department of Agriculture, Charleston, WV 25305 Phone: 304-348-2212
Wisconsin	Mr. Samuel B. Ferguson, Supervisor, Survey and Laboratory Services Section, Wisconsin Department of Agriculture, Trade and Consumer Protection, P.O. Box 8911, Madison, WI 53708 Phone: 608-266-7134
Wyoming	Mr. Walter H. Patch, Director, Division of Plant Industry, Wyoming Department of Agriculture, 2219 Carey Avenue, Cheyenne, WY 82002 Phone: 307-777-7321

Revised December 31, 1979

U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):33-36, 1980

COOPERATIVE SURVEY ENTOMOLOGISTS

Arizona	Mr. John A. Bedford, Director, Division of Pest Control, Arizona Commission of Agriculture and Horticulture, Room 421, 1688 W. Adams Street, Phoenix, AZ 85007 Phone: 602-255-4373
Arkansas	Dr. Mark A. Mayse, Extension Survey Entomologist, Department of Entomology, A 310, University of Arkansas, Fayetteville, AR 72701 Phone: 501-575-2451
California	Mr. Charles S. Papp, Division of Plant Industry, Laboratory Services, California Department of Food and Agriculture, 1220 N Street, Room 340, Sacramento, CA 95814 Phone: 916-445-4521
Colorado	Mr. William M. Hantsbarger, Department of Zoology and Entomology, Colorado State University, Fort Collins, CO 80523 Phone: 303-491-5945
Delaware	Dr. Paul P. Burbutis, Department of Entomology and Applied Ecology, University of Delaware, Newark, DE 19711 Phone: 302-738-2526
Florida	Dr. Frank W. Mead, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, P.O. Box 1269, Gainesville, FL 32602 Phone: 904-372-3505, Ext. 285
Hawaii	Mr. Larry M. Nakahara, Hawaii State Department of Agriculture, P.O. Box 22159, Honolulu, HI 96822 Phone: 808-548-7123
Idaho	Mr. H.W. Homan, Extension Entomologist, Department of Entomology, University of Idaho, Moscow, ID 83843 Phone: 208-885-6595
Illinois	Mr. Arthur Agnello, University of Illinois, 172 Natural Resources Building, Urbana, IL 61801 Phone: 217-333-6650
Indiana	Mr. Robert W. Meyer, Department of Entomology, Purdue University West Lafayette, IN 47907 Phone: 317-493-9705
Iowa	Vacant
Kansas	Dr. K.O. Bell, Jr., Division of Entomology, Kansas State Board of Agriculture, 1720 S. Topeka Avenue, Topeka, KS 66612 Phone: 913-296-3016 Street address will change to: 901 Kansas Avenue, Topeka, KS 66612 in early March
Kentucky	Mr. Phillip E. Sloderbeck, Survey Entomologist, Department of Entomology, University of Kentucky, Lexington, KY 40506 Phone: 606-258-4521
Maine	Mr. Arthur Gall, Extension Entomologist, Department of Entomology, 310 Deering Hall, University of Maine, Orono, ME 04469 Phone: 207-581-7703
Maryland	Dr. John L. Hellman, Department of Entomology, University of Maryland, College Park, MD 20742 Phone: 301-454-3845

Michigan	Dr. Stuart H. Gage, Assistant Professor and Extension Specialist, Department of Entomology, Michigan State University, East Lansing, MI 48824 Phone: 517-353-3890
Minnesota	Dr. Dharma D. Sreenivasam, Division of Plant Industry, Minnesota Department of Agriculture, 90 West Plato Boulevard, St. Paul, MN 55107 Phone: 612-296-1350
Mississippi	Mr. Ronald E. Anderson, Survey Entomologist, P.O. Drawer EM, Mississippi State University, Mississippi State, MS 39762 Phone: 601-325-4541
Missouri	Dr. Ralph E. Munson, Department of Entomology, 1-87 Agriculture Building, University of Missouri, Columbia, MO 65201 Phone: 314-882-3847
Montana	Dr. Gary L. Jensen, Extension Entomologist, Lewis Hall, Montana State University, Bozeman, MT 59717 Phone: 406-994-2440
Nebraska	Dr. David L. Keith, Extension Survey Entomologist, Plant Industry 211A, Department of Entomology, University of Nebraska, Lincoln, NE 68583 Phone: 402-472-2123
Nevada	Mr. Robert C. Bechtel, Survey and Systematic Entomologist, Division of Plant Industry, Nevada State Department of Agriculture, P.O. Box 11100, Reno, NV 89510 Phone: 702-784-6401
New Hampshire	Dr. John F. Burger, Department of Entomology, Nesmith Hall, University of New Hampshire, Durham, NH 03824 Phone: 603-862-1707
New Mexico	Dr. Gerald L. Nielsen, Entomologist, New Mexico Department of Agriculture, Box 3BA, Las Cruces, NM 88003 Phone: 505-646-3207
New York	Dr. Harold R. Willson, Survey Entomologist, Department of Entomology, Caldwell Hall, Cornell University, Ithaca, NY 14853 Phone: 607-256-3222
North Carolina	Mr. Thomas N. Hunt, Survey Entomologist, 2309 Gardner Hall, North Carolina State University, Raleigh, NC 27607 Phone: 919-737-2831
Ohio	Vacant
Oklahoma	Mr. Don C. Arnold, Department of Entomology, Oklahoma State University, Stillwater, OK 74074 Phone: 405-624-5531
Oregon	Dr. Richard L. Penrose, Plant Division, Oregon State Depart- ment of Agriculture, Agriculture Building, 635 Capital, NE., Salem, OR 97310 Phone: 503-378-3776
Pennsylvania	Dr. Ke Chung Kim, The Frost Entomological Museum, Department of Entomology, The Pennsylvania State University, 201 Patterson Building, University Park, PA 16802 Phone: 814-865-1895

South Carolina	Ms. Liz Gilreath, Survey Entomologist, Department of Entomology and Economic Zoology, Clemson University, Clemson, SC 29631 Phone: 803-656-3113
South Dakota	Dr. David D. Walgenbach, Plant Science Department, South Dakota State University, Brookings, SD 57006 Phone: 605-688-6176
Texas	Dr. John A. Jackman, Extension Survey Entomologist, Room 411C, Soil and Crop Sciences--Entomology Building, Texas A&M University, College Station, TX 77843 Phone: 713-845-7026
Utah	Mr. Reed S. Roberts, Extension Entomologist, Utah State University, Logan, UT 84322 Phone: 801-752-4100, Ext. 7871
Virginia	Dr. William A. Allen, Extension Specialist & Survey Entomologist, Department of Entomology, 312 Price Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061 Phone: 703-961-6772
Washington	Dr. E.C. Klostermeyer, Acting Chairman, Department of Entomology, Washington State University, Pullman, WA 99164 Phone: 509-335-5504
West Virginia	Mr. J. Douglas Hacker, Survey Entomologist, Plant Pest Control Division, West Virginia Department of Agriculture, Charleston, WV 25305 Phone: 304-348-2212
Wisconsin	Mr. Orville L. Lovett, Plant Industry Division, Wisconsin Department of Agriculture, Trade and Consumer Protection, P.O. Box 8911, Madison, WI 53708 Phone: 608-266-7138
Wyoming	Mr. Walter H. Patch, Director, Division of Plant Industry, Wyoming Department of Agriculture, 2219 Carey Avenue, Cheyenne, WY 82002 Phone: 307-777-7321

Revised December 31, 1979

U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):37-39, 1980

COOPERATIVE SURVEY PLANT PATHOLOGISTS

Illinois Dr. Edward G. Jordan, Department of Plant Pathology, University of Illinois, Turner Hall, N-519, Urbana, IL 61801
Phone: 217-333-7900

Indiana Mr. Robert Schall, Department of Botany and Plant Pathology, Purdue University, Lafayette, IN 47907 Phone: 317-749-6544

Iowa Mr. Daniel Williams, USDA, APHIS, PPQ - c/o Iowa Department of Agriculture, Entomology Office, 1st Floor, E. 7th and Court, Des Moines, IA 50319 Phone: 515-284-4093

Kansas Mr. Thomas Sim IV, Survey Plant Pathologist, Kansas State Board of Agriculture, Division of Entomology, 1720 S. Topeka Avenue, Topeka, KS 66612 Phone: 913-296-3016 Street address will change to: 901 Kansas Avenue, Topeka, KS 66612 on March 1, 1980.

Michigan Dr. Bisham P. Singh, Department of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824
Phone: 517-355-4533

Minnesota Dr. Erik L. Stromberg, Department of Plant Pathology, University of Minnesota, St. Paul, MN 55108 Phone: 612-373-0885

Missouri Dr. Arnold Foudin, Department of Plant Pathology, University of Missouri, Columbia, MO 65211 Phone: 314-882-2093
FTS: 276-3290

Nebraska Mr. Stephen Poe, Department of Plant Pathology, University of Nebraska, Lincoln, NE 68583 Phone: 402-472-3169
FTS 541-5252

North Dakota Mr. Virgil Jons, Department of Plant Pathology, North Dakota State University, Fargo, ND 58105 Phone: 701-237-7057

Ohio Dr. Raymond Hite, Department of Plant Pathology, Ohio State University, 1735 Neil Avenue, Columbus, OH 43210
Phone: 614-422-6397

Oklahoma Dr. K.E. Conway, Plant Disease Diagnostic Clinic, Oklahoma State University, Stillwater, OK 74074 Phone: 405-624-5643

South Dakota Mr. Virgil Jons, Department of Plant Pathology, North Dakota State University, Fargo, ND 58105 Phone: 701-237-5057

Revised December 31, 1979

U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):40, 1980

PESTS NOT KNOWN TO OCCUR IN THE UNITED STATES
Or
Of Limited Distribution

RASPBERRY BEETLES

Byturus tomentosus Fabricius

Byturus fumatus Fabricius 1/

Coleoptera: Byturidae

ECONOMIC IMPORTANCE

These are major pests of raspberries in Europe from the British Isles into the Soviet Union - serious on loganberries in England and dewberries in the Soviet Union. Control is difficult due to the time spent in the soil and rapid population development (Korolkov 1914).

Throughout temperate Europe to Siberia, infestations have been reported in Czechoslovakia, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, the Soviet Union, Spain, Sweden, and the United Kingdom (England, Scotland) (Taylor and Gordon 1975, Steer 1931, Korolkov 1914).

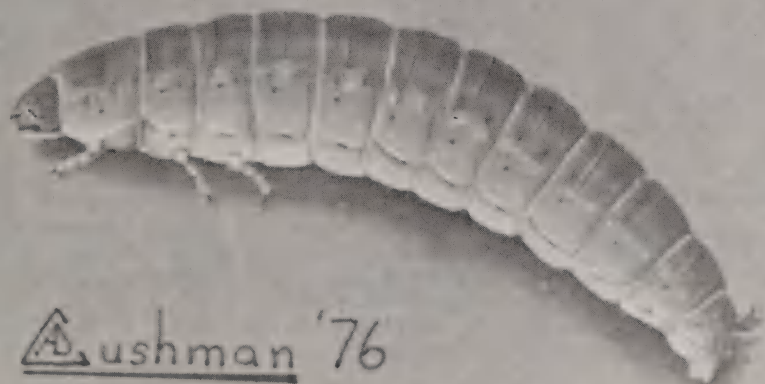
HOSTS

Loganberry and raspberry, in that order, are the preferred hosts. Other hosts are acacia, apple, blackberry, buttercup, cherry, dewberry, hawthorn, pear, plum, lilac, service-tree, and strawberry (Taylor and Gordon 1975, Beffa 1949, Steer 1931, Korolkov 1914).

1/ These species are nearly identical in biology, habits, and distribution and are often confused. Facts presented here apply to both species, except where noted. The common name "raspberry beetle" has been applied to B. tomentosus, but not specifically to B. fumatus. The taxonomy of this group is confused. The original Fabrician names are used here due to their predominance in the literature. One should read Barber 1942 carefully, especially pp. 15-18, which presents a good case for the use of other specific names.



GENERAL DISTRIBUTION OF *BYTURUS TOMENTOSUS* AND *B. FUMATUS*



Aushman '76

BYTURUS TOMENTOSUS

CHARACTERS

ADULT - Generally light brown, densely pubescent. Legs and antennae red. Antenna club large, 3 segmented. Prothorax slightly elongated, convex, flattened at posterior corners. Elytra oval. B. tomentosus length not more than 4 mm, pubescence gray; B. fumatus 4-5 mm, pubescence gilded yellow.

EGG - Small, creamy white, shiny, elongated, 1.2 by 0.4 mm.

LARVA - Fully grown 5-6 mm long, elongate and cylindrical. Head brown. Body yellow, each segment with large brown plaque and dorsal serrate ridge segments setose dorsally and ventrally, lateral margin membranous; abdominal segment 9 with pair of hooked appendages. Legs well developed (Taylor and Gordon 1975, Barber 1942, Balachowsky and Mesnil 1935).

CHARACTERISTIC DAMAGE

Most serious, in order of heaviest damage, on loganberry, raspberry, dewberry, and blackberry. Adults feed by chewing leaf and flower buds. Damage to flower buds, stamens, pistils, and nectaries seriously reduces the fruit yield. Larvae tunnel into the developing fruit and hollow the center. Larval damage results in malformed, shriveled berries and is the more important factor in reducing crop value (Taylor and Gordon 1975, Steer 1931, Korolkov 1914).

DETECTION NOTES

1. There are four described species of Byturus in the United States: Byturus bakeri Barber (western raspberry fruitworm), Byturus rubi Barber (eastern raspberry fruitworm), Byturus sordidus Barber (no common name), and Byturus unicolor Say (raspberry fruitworm). B. unicolor seems to be a name under which two or more domestic species are confused (Walden 1923, Barber 1942). These are closely allied in appearance and habits to the European species.
2. The survey methods involve the examination of spring leaves for adults, early summer fruit for larvae, and fall soil for pupae (Walden 1923).

BIOLOGY

Adults overwinter in the soil under host plants. In Scotland, emergence begins in April and May, reaching a peak in early to mid-June in eastern Scotland. They feed on various flowers such as those of hawthorn and apple, sometimes damaging the fruit of the latter, but they also aid in pollination. Adults which tunnel and sever the buds at the base, may feed on unopened flower buds of raspberry and loganberry. Damage is more severe when there are no hawthorn blooms nearby. The adults are very active in sunny weather and fly readily, but are sluggish when it is cool and wet. When the fruit trees have finished blooming, the adults move to the opened flowers of raspberries and loganberries to feed on stamens, styles, and nectaries. Nectar appears to be the chief attractant (Taylor and Gordon 1975, Anonymous 1960).

Oviposition in France and England begins as soon as the flowers open in early June, and continues into July. Eggs are laid one, and sometimes two, per blossom, preferably in those flowers which have set fruit. Eggs are laid much later on blackberry and hatch in about 10-20 days, while the fruit is swelling. In eastern Scotland, hatch begins during the green-fruit stage (about early July) and is mostly over during the first pink-fruit stage (about mid-July). The eggs are attached to stamens, pistils or to the center of the flower and occasionally to stems and flower stalks.

Larvae feed on the surface of the fruit, bore inside (usually at the base) to the center and tunnel throughout the receptacle of the fruit, feeding on the seeds in the surrounding drupelets. In Scotland, fully grown larvae migrate to the soil, burrow 1-15 cm, and form small cells to pupate in late July. Pupae form about a month later. The pupal stage lasts from 4 to 5 weeks, but the adults stay in the soil until the following spring (Taylor and Gordon 1975, Taylor 1971, Anonymous 1960, Balachowsky and Mesnil 1935, Steer 1931). Evidence from Kent, England, indicates that larvae entering the soil very late may remain in the soil and wait until August of the following year to pupate, passing a second winter in the soil as adults (Steer 1931).

Control: Chemical spray or dust treatment of foliage just before the adults begin to feed in the spring plus shallow cultivation to break up pupal cells and expose pupae to drying are the usual measures taken (Taylor 1971, Walton 1930, Walden 1923).

REFERENCES

Anonymous. Raspberry beetle. Advis. Leaflet. 164. Minist. of Agric., Fish, and Food, Whitehall Place, London S.W.1; 1960. 3p.

Baker, W.W.; Crumb, S.E.; Landis, B.J.; Wilcox, J. Biology and control of the western raspberry fruitworm in western Washington. Washington Agric. Exp. Stn. Bull. 497:1-32; 1947.

Balachowsky, A.; Mesnil L. Les insectes nuisibles aux plantes cultivees. Vol.1. Paris; 1935. 1137p.

Barber, H.S. Raspberry fruitworms and related species. U.S. Dep. of Agric. Misc. Publ. 468; 1942.

Beffa, G.D. Gli insetti dannosi all'agricoltura e i moderni metodi e mezzi di lotta. Editore Ulrico Hoepli Milano; 1949. 978p.

Korolkov, D.M. Materials for study of the injurious insects of the gov. of Moscow. 5:1-93; 1914.

Steer, W. The loganberry beetle. 16th-18th Ann. Rep. East Malling Res. Sta. 1928-30, East Malling, Kent, 1931. Taken from: Rev. Appl. Entomol. Ser. A 19(11):638-639; 1931.

Taylor, C.E. (Scott. Hortic. Res. Inst., Invergowrie, Dundee, Scotland). The raspberry beetle (*Byturus tomentosus*) and its control with alternative chemicals to DDT. Hortic. Res. 11:107-112; 1971.

Taylor, C.E.; Gordon, S.C. (Scott. Hortic. Res. Inst., Invergowrie, Dundee, Scotland). Further observations on the biology and control of the raspberry beetle (*Byturus tomentosus* (Deg.)) in eastern Scotland. J. Hortic. Sci. 50(2):105-112; 1975.

Walden, B.H. The raspberry fruit worm. Connecticut Agric. Exp. Stn. Bull. 251; 1923.

Walton, C.L. (Long Ashton Res. Stn.). The raspberry and loganberry beetle and its control: further experiments with pyrethrum emulsion sprays and a dust. J. Pomol. and Hortic. Sci. 8(4):309-315; 1930.

U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):41-44, 1980

This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY

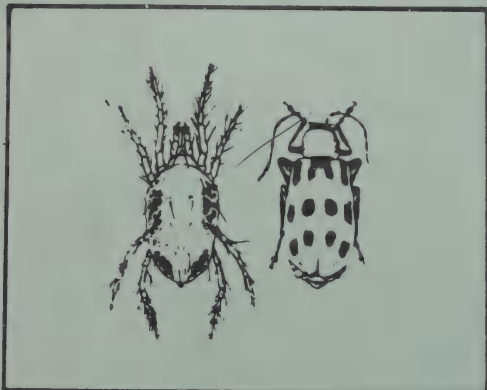


1023169289

POS
C

APH 101

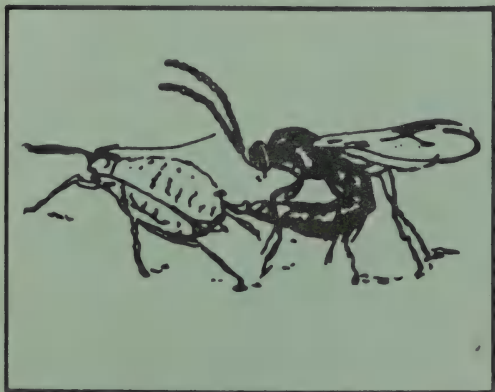
34/033NIDLANESR R1 CPR-0001
DR IVAN ~~W KIRK~~ ASST AD
USDA SER SR *L B R*
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



25B823 Reserve

253
**Cooperative
PLANT
PEST
REPORT**

U.S. January 1980
DEPARTMENT OF AGRICULTURE Vol. 5
No. 1
Animal and Plant Health Inspection Service
Addendum



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

PESTS NOT KNOWN TO OCCUR IN THE UNITED STATES
Or
Of Limited Distribution

RASPBERRY BEETLES

Byturus tomentosus Fabricius

Byturus fumatus Fabricius ^{1/}

Coleoptera: Byturidae

ECONOMIC IMPORTANCE

These are major pests of raspberries in Europe from the British Isles into the Soviet Union - serious on loganberries in England and dewberries in the Soviet Union. Control is difficult due to the time spent in the soil and rapid population development (Korolkov 1914).



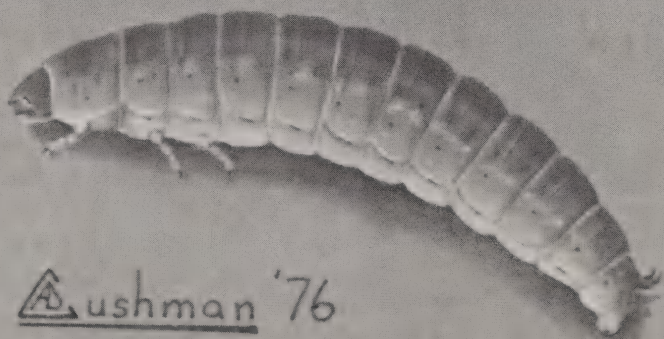
GENERAL DISTRIBUTION OF BYTURUS TOMENTOSUS AND B. FUMATUS


Throughout temperate Europe to Siberia, infestations have been reported in Czechoslovakia, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, the Soviet Union, Spain, Sweden, and the United Kingdom (England, Scotland) (Taylor and Gordon 1975, Steer 1931, Korolkov 1914).

HOSTS

Loganberry and raspberry, in that order, are the preferred hosts. Other hosts are acacia, apple, blackberry, buttercup, cherry, dewberry, hawthorn, pear, plum, lilac, service-tree, and strawberry (Taylor and Gordon 1975, Beffa 1949, Steer 1931, Korolkov 1914).

^{1/} These species are nearly identical in biology, habits, and distribution and are often confused. Facts presented here apply to both species, except where noted. The common name "raspberry beetle" has been applied to B. tomentosus, but not specifically to B. fumatus. The taxonomy of this group is confused. The original Fabrician names are used here due to their predominance in the literature. One should read Barber 1942 carefully, especially pp. 15-18, which presents a good case for the use of other specific names.



ushman '76

BYTURUS TOMENTOSUS

CHARACTERS

ADULT - Generally light brown, densely pubescent. Legs and antennae red. Antenna club large, 3 segmented. Prothorax slightly elongated, convex, flattened at posterior corners. Elytra oval. B. tomentosus length not more than 4 mm, pubescence gray; B. fumatus 4-5 mm, pubescence gilded yellow.

EGG - Small, creamy white, shiny, elongated, 1.2 by 0.4 mm.

LARVA - Fully grown 5-6 mm long, elongate and cylindrical. Head brown. Body yellow, each segment with large brown plaque and dorsal serrate ridge segments setose dorsally and ventrally, lateral margin membranous; abdominal segment 9 with pair of hooked appendages. Legs well developed (Taylor and Gordon 1975, Barber 1942, Balachowsky and Mesnil 1935).

CHARACTERISTIC DAMAGE

Most serious, in order of heaviest damage, on loganberry, raspberry, dewberry, and blackberry. Adults feed by chewing leaf and flower buds. Damage to flower buds, stamens, pistils, and nectaries seriously reduces the fruit yield. Larvae tunnel into the developing fruit and hollow the center. Larval damage results in malformed, shriveled berries and is the more important factor in reducing crop value (Taylor and Gordon 1975, Steer 1931, Korolkov 1914).

DETECTION NOTES

1. There are four described species of Byturus in the United States: Byturus bakeri Barber (western raspberry fruitworm), Byturus rubi Barber (eastern raspberry fruitworm), Byturus sordidus Barber (no common name), and Byturus unicolor Say (raspberry fruitworm). B. unicolor seems to be a name under which two or more domestic species are confused (Walden 1923, Barber 1942). These are closely allied in appearance and habits to the European species.
2. The survey methods involve the examination of spring leaves for adults, early summer fruit for larvae, and fall soil for pupae (Walden 1923).

BIOLOGY

Adults overwinter in the soil under host plants. In Scotland, emergence begins in April and May, reaching a peak in early to mid-June in eastern Scotland. They feed on various flowers such as those of hawthorn and apple, sometimes damaging the fruit of the latter, but they also aid in pollination. Adults which tunnel and sever the buds at the base, may feed on unopened flower buds of raspberry and loganberry. Damage is more severe when there are no hawthorn blooms nearby. The adults are very active in sunny weather and fly readily, but are sluggish when it is cool and wet. When the fruit trees have finished blooming, the adults move to the opened flowers of raspberries and loganberries to feed on stamens, styles, and nectaries. Nectar appears to be the chief attractant (Taylor and Gordon 1975, Anonymous 1960).

Oviposition in France and England begins as soon as the flowers open in early June, and continues into July. Eggs are laid one, and sometimes two, per blossom, preferably in those flowers which have set fruit. Eggs are laid much later on blackberry and hatch in about 10-20 days, while the fruit is swelling. In eastern Scotland, hatch begins during the green-fruit stage (about early July) and is mostly over during the first pink-fruit stage (about mid-July). The eggs are attached to stamens, pistils or to the center of the flower and occasionally to stems and flower stalks.

Larvae feed on the surface of the fruit, bore inside (usually at the base) to the center and tunnel throughout the receptacle of the fruit, feeding on the seeds in the surrounding drupelets. In Scotland, fully grown larvae migrate to the soil, burrow 1-15 cm, and form small cells to pupate in late July. Pupae form about a month later. The pupal stage lasts from 4 to 5 weeks, but the adults stay in the soil until the following spring (Taylor and Gordon 1975, Taylor 1971, Anonymous 1960, Balachowsky and Mesnil 1935, Steer 1931). Evidence from Kent, England, indicates that larvae entering the soil very late may remain in the soil and wait until August of the following year to pupate, passing a second winter in the soil as adults (Steer 1931).

Control: Chemical spray or dust treatment of foliage just before the adults begin to feed in the spring plus shallow cultivation to break up pupal cells and expose pupae to drying are the usual measures taken (Taylor 1971, Walton 1930, Walden 1923).

REFERENCES

- Anonymous. Raspberry beetle. Advis. Leaflet. 164. Minist. of Agric., Fish, and Food, Whitehall Place, London S.W.1; 1960. 3p.
- Baker, W.W.; Crumb, S.E.; Landis, B.J.; Wilcox, J. Biology and control of the western raspberry fruitworm in western Washington. Washington Agric. Exp. Stn. Bull. 497:1-32; 1947.
- Balachowsky, A.; Mesnil L. Les insectes nuisibles aux plantes cultivees. Vol.1. Paris; 1935. 1137p.
- Barber, H.S. Raspberry fruitworms and related species. U.S. Dep. of Agric. Misc. Publ. 468; 1942.
- Beffa, G.D. Gli insetti dannosi all'agricoltura e i moderni metodi e mezzi di lotta. Editore Ulrico Hoepli Milano; 1949. 978p.
- Korolkov, D.M. Materials for study of the injurious insects of the gov. of Moscow. 5:1-93; 1914.
- Steer, W. The loganberry beetle. 16th-18th Ann. Rep. East Malling Res. Sta. 1928-30, East Malling, Kent, 1931. Taken from: Rev. Appl. Entomol. Ser. A 19(11):638-639; 1931.
- Taylor, C.E. (Scott. Hortic. Res. Inst., Invergowrie, Dundee, Scotland). The raspberry beetle (*Byturus tomentosus*) and its control with alternative chemicals to DDT. Hortic. Res. 11:107-112; 1971.
- Taylor, C.E.; Gordon, S.C. (Scott. Hortic. Res. Inst., Invergowrie, Dundee, Scotland). Further observations on the biology and control of the raspberry beetle (*Byturus tomentosus* (Deg.)) in eastern Scotland. J. Hortic. Sci. 50(2):105-112; 1975.
- Walden, B.H. The raspberry fruit worm. Connecticut Agric. Exp. Stn. Bull. 251; 1923.
- Walton, C.L. (Long Ashton Res. Stn.). The raspberry and loganberry beetle and its control: further experiments with pyrethrum emulsion sprays and a dust. J. Pomol. and Hortic. Sci. 8(4):309-315; 1930.

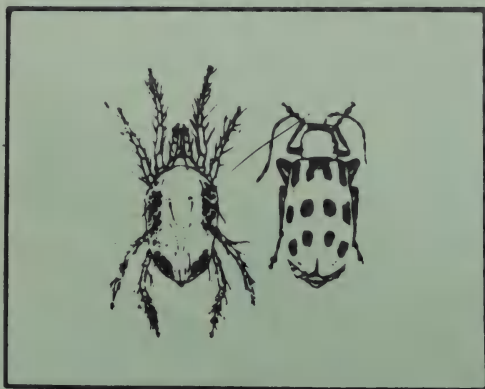
U.S. Dep. Agric.
Coop. Plant Pest Rep.
5(1):41-44, 1980

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre



1023142877



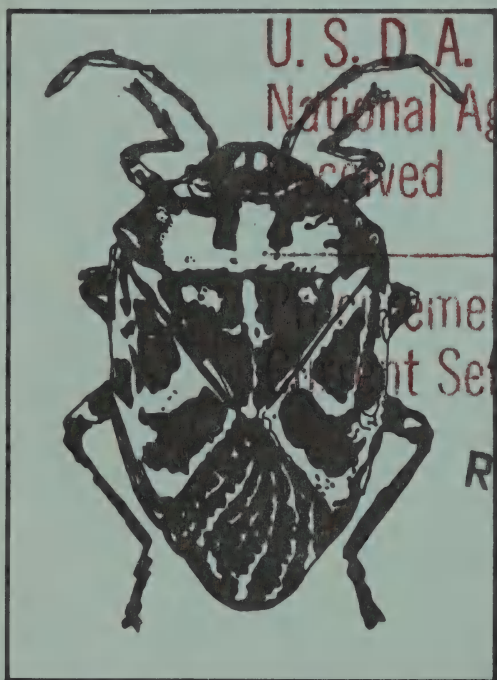
258
823
253

Cooperative PLANT PEST REPORT

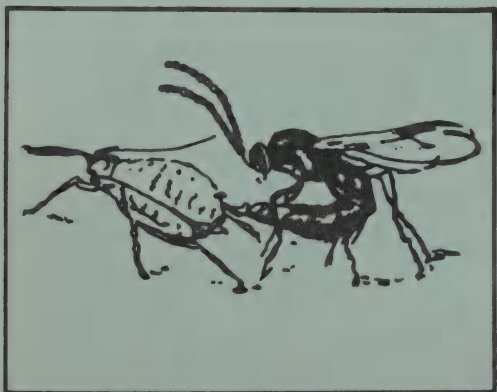
3/4 ✓
February 8, 1980

U.S.
DEPARTMENT
OF AGRICULTURE Vol. 5
No. 2

Animal
and Plant
Health
Inspection
Service



RECEIVED



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Detection

New State records include PINWOOD NEMATODE in Florida and Tennessee (p. 49-50), DEODAR WEEVIL and a TENTHREDINID SAWFLY in Oklahoma, and EUROPEAN PINE SAWFLY in Delaware (p. 50).

New county records on page 51.

New host for PINWOOD NEMATODE in Tennessee. (p. 50).

Special Reports

Summary of Pest Conditions in the United States - 1979

Introduction. (p. 53).

Corn, Sorghum, Sugarcane. (p. 53-67).

Reports in this issue are for the week ending February 1 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Insects.....	47	Deciduous Fruits and Nuts Insects.....	49
Small Grains Diseases.....	47	Forest and Shade Trees Diseases.....	49
Insects.....	48	Insects.....	50
Forage Legumes Insects.....	48	Man and Animals Insects.....	50
Miscellaneous Field Crops Insects.....	49		
Beneficial Organisms and Their Enemies Insects.....	50		
Detection.....	51		
Corrections.....	51		
Light Trap Collections.....	51		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	52		
Summary of Pest Conditions in the United States - 1979 Introduction.....	53		
Corn, Sorghum, Sugarcane Diseases.....	54		
Insects.....	57		

CORN, SORGHUM, SUGARCANE

INSECTS

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) - OHIO - New county records collected from or next to corn during August and September 1979. Counts light in all fields, 0.1 per plant or less. Collected and determined by G.P. Walker. (G.P. Walker).

District> County	Nearest city	Collection date
SW> Hamilton	State Highway 128 about 3 km north of Miamitown	Aug 20
SW> Clermont	State Highway 132 about 5 km north of Owensville	Aug 20
SC> Brown	Hamersville	Aug 20
SC> Highland	Leesburg	Aug 21
SC> Adams	State Highway 247 about 10 km north of Seaman	Aug 21
SC> Scioto	Otway	Aug 21
SC> Pike	Dailyville	Aug 28
C> Pickaway	South Bloomfield	Aug 27
C> Ross	Yellowbud	Aug 27
C> Fairfield	State Highway 256 about 5 km west of Salem	Aug 29
C> Licking	Kirkersville	Sep 4
C> Knox	Howard	Sep 4
SE> Vinton	U.S. Highway 50 about 5 km west of Ratcliffburg	Aug 28
SE> Hocking	Logan	Aug 28
SE> Muskingum	Zanesville	Sep 4
SE> Guernsey	Kimbolton	Sep 5
SE> Perry	Thornville	Sep 5
EC> Coshocton	Tunnel Hill	Sep 4
EC> Holmes	Killbuck	Sep 4
EC> Tuscarawas	Dover	Sep 5
EC> Carroll	Sherrodsville	Sep 5
EC> Harrison	Scio	Sep 5
EC> Jefferson	State Highway 164 about 10 km north of Bergholz	Sep 12
NE> Stark	Wilmot	Sep 5
NE> Medina	Friendsville	Sep 10
NE> Cuyahoga	Strongsville	Sep 10
NE> Portage	Kent	Sep 10
NE> Summit	East Liberty	Sep 10
NE> Geauga	Auburn Corners	Sep 11
NE> Lake	Perry	Sep 11
NE> Ashtabula	Austinburg	Sep 11
NE> Mahoning	New Albany	Sep 11
NE> Trumbull	North Bloomfield	Sep 11
NE> Columbiana	Salineville	Sep 12

SMALL GRAINS

DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - OKLAHOMA - District> County= status on wheat week of January 7: SE> Choctaw= chlorotic flecks heavy on leaves in small area of field. (K.E. Conway).

INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - FLORIDA - District> County= larvae per 100 sweeps of rye [1 m tall]: C> Alachua= 9 at Gainesville. (F.W. Mead).

A WEEVIL (*Polydrusus cervinus*) - NEW HAMPSHIRE - New county record. County= collection data from oats: Merrimack= adults 3 on farm at Penacook, June 14, 1978, collected by K.M. Cox, determined by V.L. Blackburn; confirmed by E.R. Hoebeke. (E.R. Hoebeke).

GREENBUG (*Schizaphis graminum*) - TEXAS - Status per 0.3 row m of small grains January 14 and 17 (C.E. Hoelscher, E.P. Boring, III):

<u>District> County</u>	<u>Status</u>
Blacklands area>	increasing
Blacklands> Hill	treating
Blacklands> McLennan	treating
Blacklands> Bell	treating
Blacklands> Coryell	treating
Cross Timbers> Archer	0-6
Southern Low Plains> Baylor	0-6
Northern Low Plains> Wichita	0-4
Northern Low Plains> Wilbarger	0-11
Northern Low Plains> Wilbarger	up to 100-200 in spots
Northern Low Plains> Hardeman	light

OKLAHOMA - District> County= greenbug counts on wheat week ending January 25: WC> Washita= averaged 1,000 per 0.3 row m in 1 field and SC> Stephens= light. (D.C. Arnold).

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - FLORIDA - District> County= nymphs and adults per 100 sweeps of rye [1 m tall, young seed heads present]: C> Alachua= 185 at Gainesville. (F.W. Mead).

A LEAFHOPPER (*Balclutha hebe*) - FLORIDA - District> County= adults per 100 sweeps of rye [1 m tall]: C> Alachua= 220 at Gainesville. (F.W. Mead).

WINTER GRAIN MITE (*Penthaleus major*) - TEXAS - Counts per 0.3 row m January 14 (E.P. Boring, III, M. Henry):

<u>District> County</u>	<u>Counts</u>	<u>Host</u>
Cross Timbers> Archer	0-70	wheat
Cross Timbers> Archer	0 to heavy	oats
Southern Low Plains> Baylor	0-70	wheat
Northern Low Plains> Wichita	0-2	small grains
Northern Low Plains> Wilbarger	0-37	small grains
Northern Low Plains> Wilbarger	108 in spots	small grains

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - FLORIDA - District> County= larvae and adults per 100 sweeps of alfalfa: C> Alachua= 80 and 17, respectively, at Gainesville. (F.W. Mead). OKLAHOMA - District> County= egg averages per 0.09 sq m of

alfalfa January 17: SC> Stephens= 23.6, 35.6, and 37.8 at 3 locations, several "blackhead" alfalfa weevil eggs present; and C> Grady= 43.8. (D.C. Arnold).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= nymphs and adults per 100 sweeps of forage legumes: C> Maricopa= few to 3,300, Pinal= 1,080, and SW> Yuma= 2,000-4,000. (F. Brooks et al.). FLORIDA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Alachua= about 2,000 at Gainesville. (F.W. Mead).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - ARIZONA - District> County= nymphs and adults per 100 sweeps of forage legumes: C> Pinal= 336. (F. Brooks et al.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= adults per 100 sweeps of forage legumes: C> Maricopa= 100 and SW> Yuma= 60-120. (F. Brooks et al.). FLORIDA - District> County= nymphs per 100 sweeps of alfalfa: C> Alachua= about 520 at Gainesville. (F.W. Mead).

LYGUS BUGS (Lygus spp.) - ARIZONA - District> County= adults per 100 sweeps of forage legumes: C> Maricopa= 10-100, Pinal= 4, and SW> Yuma= 70. (F. Brooks et al.).

MISCELLANEOUS FIELD CROPS

INSECTS

A CECIDOMYIID MIDGE (Neolasioptera helianthi) - OKLAHOMA - New county records. District> County= collection data: EC> Pittsburg= from Helianthus annuus (sunflower) at McAlester, September 15, 1977, Hughes= from Helianthus strumosus (a sunflower) at Calvin, September 15, SE> Latimer= from Helianthus hirsutus (a sunflower) at Wilburton, September 15, Le Flore= from Helianthus divaricatus (a sunflower) at Wister, September 16; and NE> Tulsa= from H. annuus at Tulsa, September 25. All collected by C.E. Rogers and T.E. Thompson, determined by R.J. Gagne. (D.C. Arnold).

DECIDUOUS FRUITS AND NUTS

INSECTS

PEAR PSYLLA (Psylla pyricola) - OREGON - Area> status on pear week ending January 25: Rogue Valley> warm winter temperatures advanced adult development, egg laying expected to begin in orchards. Growers should start dormant treatments when good weather first starts. (D. Berry).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - FLORIDA - New State record. District> County= collection data from Pinus elliottii (slash pine): C> Alachua= larvae, males, and females collected from dead tree on environs of commercial pine forest nursery near Archer, January 14, 1980, by R.P. Esser, K.J. Harkcom, C. Rihard, and A.C. Tarjan, determined by R.P. Esser and W. Friedman. Tree 12 m tall, showed definite evidence of lightning strike and had external symptoms of PITCH CANKER (Fusarium lateritium f.sp. pini). Pinewood nematodes in samples obtained by increment borer used chest high and 10 cm deep into trunk from sections of cut stumps and branches at midcrown area. (R.P. Esser et al.).

TENNESSEE - New State record and new host record for State for pinewood nematode. District> County= collection data from ornamental plantings of Pinus strobus (eastern white pine): Delta> Shelby= larvae and adults 1,000+ per g of wood from private residence at Collierville and at Germantown, December 13, 1979, collected by D.R. Katereides and R.E. Harrison, determined by R.E. Harrison. (J.R. White).

INSECTS

DEODAR WEEVIL (Pissodes nemorensis) - OKLAHOMA - New State record. District> County= collection data from Pinus sp. (a pine): EC> Pittsburg= at McAlester, May 1979 (day unknown), by T.L. Evicks, determined by D.R. Whitehead. (D.C. Arnold). SOUTH CAROLINA - New county record. District> County= collection data from cut loblolly pine timber: E> Horry= adults on freshly sawed timber in yard at Conway, November 30, 1979, by W.D. Witherspoon, determined by J.C. Morse. (W.D. Witherspoon et al.).

BLACK PINELEAF SCALE (Nuculaspis californica) - FLORIDA - New county records. District> County= collection data from Pinus sp. (a pine) tree: C> Orange= adults moderate on leaves in city park at Winter Garden, October 26, 1979, collected by J. Shirley and H. Morrison, determined by A.B. Hamon. Tree in park probably 30-40 years. (J. Shirley). From Pinus elliottii (slash pine): S> Indian River= adults on leaves of few pines along road near Vero Beach, November 20, collected by S.P. Beidler, determined by A.B. Hamon. Plants growing in wild. (S.P. Beidler).

EUROPEAN PINE SAWFLY (Neodiprion sertifer) - DELAWARE - New State record. District> County= collection data from Pinus spp. (pines): N> northern New Castle= common in 1 area at Arden, May 14, 1979, collected by H. Davidson, determined by D.F. Bray. (P.P. Burbutis).

AN APHID (Lachnus salignus) - OKLAHOMA - New county record. District> County= collection data from Salix discolor (pussy willow): NC> Kay= at Tonkawa, December 6, 1979, by J.T. Pitts, determined by D.C. Arnold. Most already killed by cold weather. (D.C. Arnold).

A TENTHREDINID SAWFLY (Periclista sulfurana) - OKLAHOMA - New State record. District> County= collection data from Quercus palustris (pin oak): C> Payne= adults collected April 9, 1979, and larvae May 2 at Stillwater, by J.T. Criswell, determined by D.R. Smith. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - FLORIDA - District> County= adults per head in small beef herd: C> Alachua= averaged 20 at Micanopy. (D. Simon).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

A BRACONID WASP (Macrocentrus grandii) - WISCONSIN - District> County= status: SC> Dane= several adults recovered from winter-collected Ostrinia nubilalis (European corn borer) larvae in northern area, no precise data kept on occurrence of parasitoid, seems much higher than normal this year. (O.L. Lovett).

DETECTION

NEW STATE RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - FLORIDA - Alachua County; TENNESSEE - Shelby County. (p. 49 and 50).

INSECTS

DEODAR WEEVIL (Pissodes nemorensis) - OKLAHOMA - Pittsburg County. (p. 50).

EUROPEAN PINE SAWFLY (Neodiprion sertifer) - DELAWARE - New Castle County. (p. 50).

A TENTHREDINID SAWFLY (Periclista sulfurana) - OKLAHOMA - Payne County. (p. 50).

NEW COUNTY RECORDS

INSECTS

AN ANT (Formica perpilosa) - OKLAHOMA - District County= collection data from wooded pastureland: NE> Osage= mounds very common in small area 21 km east of Hominy, March 6, 1979, collected by D.C. Arnold and J. Skaggs, determined by J.H. Young. Collection 241 km east of previous records. (D.C. Arnold).

AN APHID (Lachnus salignus) - OKLAHOMA - Kay. (p. 50).

BLACK PINELEAF SCALE (Nuculaspis californica) - FLORIDA - Orange and Indian River. (p. 50).

A CECIDOMYIID MIDGE (Neolasioptera helianthi) - OKLAHOMA - Pittsburg, Hughes, Latimer, Le Flore, and Tulsa. (p. 49).

DEODAR WEEVIL (Pissodes nemorensis) - SOUTH CAROLINA - Horry. (p. 50).

A WEEVIL (Polydrusus cervinus) - NEW HAMPSHIRE - Merrimack. (p. 48).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - OHIO - See page 47.

CORRECTIONS

CPPR 5(1):5 - GREENBUG (Schizaphis graminum) - OKLAHOMA - Data for SC> Coal should be moved to AN APHID (Rhopalosiphum padi). (D.C. Arnold).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 1/21-27, BL - ARMYWORM (Pseudaletia unipuncta) 3, BEET ARMYWORM (Spodoptera exigua) 1, BLACK CUTWORM (Agrotis ipsilon) 1, VARIEGATED CUTWORM (Peridroma saucia) 1. CALIFORNIA - Bellota, 1/27, temp. 3.9-9.4°C, precip. trace, BL - Variegated cutworm 6. FLORIDA - Gainesville, 1/24-30, BL - GRANU-LATE CUTWORM (Feltia subterranea) 1.

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
pupal	on leaves of sour limes from baggage	Mexico	San Antonio	D. Johnston	LA
larval	on leaves of Pinus plants from cargo	Japan	San Francisco	S. Waite	TN
larval pupal adult	in wood staves on railroad wheels	France	Charleston	B. Edmondson	SC
adult	with aircraft	Japan	Anchorage	F. Rothgery	--
pupal adult	in dunnage	Belgium	San Francisco	W. Spitzer	CA
larval	in wood pallets with tile	Italy	Savannah	J. Neal	--
adult	on leaves of orchid plants from baggage	Costa Rica	Miami	J. Torres	CA
cyst	with soil on automobile	United Kingdom	Philadelphia	D. Zechmeister	PA

Aleurocanthus woglumi Ashby
citrus blackfly
Det. D. Johnston

Dichocrocis punctiferalis
a pyralid moth (Guenée)
Det. P.T. Meyerson

Leperisinus varius (Fabricius)
a scolytid beetle
Det. D.M. Anderson

Maruca testulalis (Geyer)
bean pod borer
Det. F. Rothgery

Pissodes notatus (Fabricius)
banded pine weevil
Det. R. Munkittrick

Saperda carcharias Linne
a cerambycid beetle
Det. D.M. Anderson

Vinsonia stellifera (Westwood)
star scale
Det. R. Stewart

Bidra avenae (Wollenweber) Krall
oat cyst nematode
Det. W.F. Friedman

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979

INTRODUCTION

The summary of pest conditions, beginning in this issue, will be continued for several issues of the "Cooperative Plant Pest Report." This summary was compiled by the New Pest Detection and Survey Staff from annual summaries submitted by various State and Federal cooperators. A list of individuals who assisted in assembling data will appear near the end of the last section of this summary. The New Pest Detection and Survey Staff appreciates the assistance of all individuals who have participated in the preparation of material for the 1979 summary.

CORN, SORGHUM, SUGARCANE

Highlights

HELMINTHOSPORIUM LEAF SPOT was more prevalent on corn in Michigan and Wisconsin. COMMON SMUT decreased on corn in Kansas and Nebraska. COMMON MAIZE RUST was the most prevalent disease of corn in Kansas but was unusually light in Nebraska. SOUTHERN RUST was new for Kansas. Both rusts accounted for about 4% loss to corn in this State. A STALK ROT caused about 2.5% loss to sorghum in Kansas. Loss in corn was about 4.5% in Kansas and may have been greater than normal in Nebraska. SORGHUM DOWNY MILDEW spread in Kansas but could not be found in Nebraska. ANTHRACNOSE STALK ROT and CORN EYESPOT increased on corn in Wisconsin. MAIZE DWARF MOSAIC VIRUS increased on sorghum and corn in Kansas. This mosaic and CORN LETHAL NECROSIS caused about 3% loss to corn in Kansas. This necrosis decreased in Nebraska. EUROPEAN CORN BORER was much lighter than in 1978 except for increases in Wisconsin, heavy numbers in the northern one-third of Indiana, and problems in the Coastal Plain of North Carolina. ARMYWORM was the most widespread of the general feeders in Michigan, especially on corn. Controls were necessary for FALL ARMYWORM and CORN EARWORM on corn in parts of Florida. Fall armyworm infested almost 40% of the corn in the Piedmont area of North Carolina. CORN EARWORM was as heavy as usual in Oklahoma. Control difficulties and low profits sharply reduced corn and sorghum production in one area of Florida. Potential for ear damage was higher than average in the Coastal Plains of North Carolina. Extensive BLACK CUTWORM damage occurred in west-central and southwestern Iowa but was not so heavy as in 1978. Treated hectares increased in Kentucky. CORN ROOTWORM adults increased in Minnesota. Numbers were heavier than expected in Wisconsin with much heavier counts in August. Damage was more common but not extensive in Illinois; the State average was also higher. Soil treatments were applied to almost half of the hectares in Indiana. WESTERN CORN ROOTWORM was new for Kentucky. About 60% of the corn hectares was treated in the Coastal Plains of Kentucky for SOUTHERN CORN BILLBUG and MAIZE BILLBUG. GREENBUG was a problem on young sorghum in Oklahoma during the first half of June. CHINCH BUG was unusually common on sorghum in Oklahoma. GRASSHOPPERS damaged corn in parts of Illinois and Michigan.

DISEASES

SOUTHERN LEAF BLIGHT (Cochliobolus (Bipolaris) heterostrophus), NORTHERN LEAF BLIGHT (Setosphaeria (Exserophilum) turcica), and HELMINTHOSPORIUM LEAF SPOT (Cochliobolus (Bipolaris) carbonum) caused by imperfect stages Bipolaris maydis, Exserophilum turcicum, and Bipolaris zeicola, respectively, were more prevalent on corn in MICHIGAN in 1979 than in 1978.

Prevalence of helminthosporium leaf spot, caused by the imperfect stage B. zeicola, increased and averaged 4% on corn in WISCONSIN. Severity was generally light except in certain varieties and locations. Several seed producers experienced a rapid buildup of the disease which prompted fungicidal treatment. The south-central, southwestern, and west-central districts were most affected.

The prevalence of COMMON SMUT (Ustilago maydis) on corn in KANSAS decreased from the 1978 levels. It was observed in all crop reporting districts except the southeast. The estimated loss was 0.3%. Prevalence of smut galls on corn ears in NEBRASKA ranged from 0 to 5%. An estimate for the entire State would be about 0.5%. Based on an estimated 1979 production of 777.2 million bushels, this would result in a loss of about 3.9 million bushels, with a current market value of \$8.97 million. The prevalence of smut and the resulting losses have been somewhat less in 1979 than in previous years. In 1977 and 1978 the prevalence of smut on corn ears was between 0.7% and 1%. In addition to the losses resulting from smutted ears, there are also losses of undetermined magnitude, resulting from smut galls occurring on the stalk and/or tassel. These galls may occur 2-5 times more frequently than galls on the ears.

COMMON MAIZE RUST (Puccinia sorghi) was the most prevalent and widely distributed corn disease in KANSAS. It was quite heavy in some areas, especially in the southwestern and northeastern major corn-growing areas. Usually one of the most widespread corn diseases in NEBRASKA, common maize rust was unusually light in 1979. By late August the disease was present in only trace amounts in most corn-growing areas of the State.

SOUTHERN RUST (Puccinia polysora) in KANSAS was recognized on corn in early September to establish a State record. See CPPR 5(1):3. Subsequent surveys indicated it was present in all crop reporting districts except the southwestern and west-central. Infections seemed to be most severe in the north-central district. The estimated statewide loss from this disease and COMMON MAIZE RUST (Puccinia sorghi) was 4%.

Southern rust had previously been reported on corn from NEBRASKA, but the disease does not occur in the State in most years. In 1979 the disease was present throughout the southwestern, southern, central, southeastern, eastern, and northeastern districts by mid-September. By late September, the prevalence of the disease in most fields ranged from 85% to 100%, with severities ranging from 20% to 60%. That the disease caused little or no damage can be attributed to a corn crop mature, or nearly mature, when the disease developed. Had the disease occurred a month earlier, moderate to severe losses would likely have been experienced. Uredospores are not believed to survive overwintering temperatures this far north. By late November the germination rate of uredospores collected in the field was between 0% and 5%.

SORGHUM LEAF RUST (Puccinia purpurea) was observed on sorghum over most of KANSAS, being most prevalent in the eastern two-thirds of the State. The estimated loss was 2.5%.

FUSARIUM STALK ROT (Gibberella (Fusarium) moniliforme) caused by the imperfect stage Fusarium moniliforme caused pink root lesions and stalk rot of sorghum in fields at Animas, Hidalgo County, NEW MEXICO. On susceptible varieties, severity was heavier in 1979 than in 1978.

STALK ROTS in KANSAS were again the most damaging corn diseases. However, the 1979 fall corn survey revealed that stalk rots were less prevalent than in 1978 or 1977. Physiological stress did not play as great a role in 1979, due to almost ideal growing conditions over most of the State. The prevalence of a stalk rot (Fusarium sp.) on sorghum in Kansas was reduced from levels observed in 1978. This disease appeared to be most serious in parts of the northwestern and south-central areas where lodging was observed late in the season. The estimated loss was 2.5%.

Stalk rots (Gibberella and Fusarium spp.) were the most damaging to corn in Kansas, being distributed almost statewide but were most prevalent in the north-central, central, and south-central crop reporting districts. Although prevalences were heavy in some areas, lodging was light except in isolated areas. The estimated loss was 4.5%.

Stalk rots are generally considered to be the most serious corn diseases in NEBRASKA. The prevalence of stalk rots in 1979 was about average, ranging from 25% to 50%, with an average prevalence in most fields of 40% by mid-October. Losses resulting from stalk-rot-induced lodging may have been greater than normal this year, due to delays in the harvesting of the corn crop. Stalk rots associated with DIPLODIA STALK ROT (Diplodia maydis) and CHARCOAL ROT (Macrophomina phaseolina) were not observed in the State in 1979.

SORGHUM DOWNY MILDEW (Peronosclerospora sorghii) continued its spread on sorghum in KANSAS in 1979 establishing 14 county records in the south-central, central, north-central, northeastern, and east-central districts. Sorghum downy mildew was also more active than it was in 1978 in the southwestern, south-central, and northeastern areas. This disease is now known to exist in 28 Kansas counties. Prevalence was variable in most areas where the disease was observed. The estimated loss was 1%. See 4(43):834 and 5(1):3.

The first report of this disease in NEBRASKA was on Sorghum bicolor (shatter-cane) in 1978 in 4 counties in the south-central area. Surveys of this area in 1979 did not produce any positive results. The status of this disease is now uncertain. The 1978 occurrence may have been a unique event, and climatic factors will not favor the development of the disease in most years.

Rapid, late season development of ANTHRACNOSE STALK ROT (Colletotrichum graminicola) in WISCONSIN occurred in some corn fields, causing concern to growers. The 2% and 3% prevalence of the preceding 2 years was exceeded and may indicate a growing potential significance, but laboratory screening is incomplete at this time. The greatest damage was noted on corn in the southwestern counties.

Traces of HEAD SMUT (Sphacelotheca reiliana) in KANSAS were observed on sorghum in the northwestern area.

COVERED KERNEL SMUT (Sphacelotheca sorghii) prevalence in NEW MEXICO was light in sorghum fields of Artesia, Eddy County, and at Dexter, Chaves County, during early September.

SOOTY STRIPE (Ramulispora sorghi) was much more widely distributed on sorghum across KANSAS in 1979, being most prevalent in the eastern two-thirds of the State. The estimated loss was 1%.

CRAZY TOP (Sclerophthora macrospora) in KANSAS was observed on sorghum in trace amounts in the southwestern area.

CHARCOAL ROT (Macrophomina phaseolina) in KANSAS was most prevalent on corn in the east-central and southeastern districts although infected fields were observed statewide. Prevalences were heavy in some fields, but lodging was light across the entire State. The estimated loss was 3%.

CORN EYESPOT (Kabatiella zeae) in WISCONSIN increased significantly in the past 2 years on corn in all crop reporting districts. Prevalence increased from 1% in 1977 to 33% in 1978, and was 64% in 1979 with an average severity of 3%. The southwestern district was most severely affected with a prevalence of 96% and a severity of 10%. This disease and ANTHRACNOSE LEAF BLIGHT (Colletotrichum graminicola) were widespread on corn in MICHIGAN. The reduction in yield due to eyespot was not determined. However, the symptoms were very severe in some fields (prevalence 90-100%, severity 80-90%). Since these diseases appeared late in the growing season, there was no serious damage. The inoculum is widely distributed in the State, and, if the conditions are favorable for the disease development, one should not ignore the possibility of an epiphytotic.

ROUGH SPOT (Ascochyta sorghina) and ZONATE LEAF SPOT (Gloeocercospora sorghi) in KANSAS, were observed on sorghum in varying amounts in widely scattered fields in the east-central, southeastern, and south-central areas. The estimated loss was less than 0.1%.

BACTERIAL STRIPE (Pseudomonas andropogoni) in KANSAS was reported from all 9 crop reporting districts and was most prevalent in the central area. SORGHUM LEAF STREAK (Xanthomonas holcicola) was also distributed statewide and was most prevalent in the eastern one-third of the State. LEAF SPOT (Pseudomonas syringae) was limited to the eastern two-thirds of the State. The estimated loss from these diseases, the most widespread sorghum diseases in 1979, was 1.5%.

MAIZE DWARF MOSAIC VIRUS in KANSAS was more prevalent on sorghum in 1979 than in 1978, being observed in all 9 crop reporting districts. The red leaf stage of this disease was more obvious in 1979 due to the cool night temperatures that occurred several times during the summer. Also, strain B of maize dwarf mosaic virus was identified more often than strain A in sorghum exhibiting red leaf symptoms. The estimated loss was 3%.

Maize dwarf mosaic virus was generally more prevalent on corn across Kansas in 1979 than in 1978. This virus disease was reported from every crop reporting district and was most prevalent in the eastern two-thirds of the State. A statewide survey of corn and sorghum in mid-August showed that strain A was more prevalent in the southern one-half of the State and strain B was more prevalent in the northern one-half of the State.

Maize dwarf mosaic virus in NEBRASKA is not thought to cause any significant losses in field corn, but is important as one of the viruses involved in CORN LETHAL NECROSIS disease. Surveys conducted in late June showed that the strain B of maize dwarf mosaic virus was common in commercial corn fields throughout the central, southern, southeastern, and eastern districts. Most fields

surveyed showed some evidence of maize dwarf mosaic virus infection. The average prevalence ranged from 20% to 40%, with the prevalence in some fields reaching 60%.

Maize dwarf mosaic virus in WISCONSIN became evident in late sweet corn fields at the beginning of August. It was confirmed in 18 counties by the first week of September and was present along Lake Michigan in the southeastern and east-central districts, and in some of the south-central counties. Greatest prevalence occurred in the south and diminished with northward progression. A 38% prevalence was observed in a Racine County field.

CORN LETHAL NECROSIS is a viral disease of corn that can potentially result in severe losses. It is caused by a combination of MAIZE CHLOROTIC MOTTLE VIRUS and MAIZE DWARF MOSAIC VIRUS or WHEAT STREAK MOSAIC VIRUS. This disease in KANSAS is currently found in Norton, Phillips, Smith, and Osborne Counties. Prevalences of 40-80% were reported in some fields in these areas resulting in significant yield reductions. This disease is also present in Republic and Cloud Counties in the north-central area. The estimated loss from maize dwarf mosaic and corn lethal necrosis was 3%.

Corn lethal necrosis was first observed in NEBRASKA in 1977, based on an isolated occurrence in Franklin County. In 1978, the disease was found in 2 additional adjacent counties, Harlan and Furnas. About 4,500 ha of corn showed some symptoms of infection. Severe damage was limited to about 800 ha. In 1979 the disease was not observed in any additional counties, and fewer than 500 ha of cropland showed any significant amount of infection. In fields in which the disease was present in 1979, there was less damage than had been observed in previous years. Some fields that had experienced the greatest losses in previous years had been planted in sorghum or soybeans in 1979. Relatively little is known about the biology and epidemiology of this disease, and thus it is difficult to attribute the reduction in prevalence and severity to any particular factor. Most efforts to control this disease have been directed towards the development of resistant varieties. A program was conducted in which 170 hybrid varieties were screened for resistance to corn leaf necrosis.

A STUNT NEMATODE (*Tylenchorhynchus* sp.) in KANSAS, along with a LESION NEMATODE (*Pratylenchus* sp.), and a DAGGER NEMATODE (*Xiphinema* sp.) caused severe stunting in 1 corn field in Republic County. The estimated loss due to nematodes was 5%. Infestations of *Pratylenchus* sp. in NEW MEXICO were heavy in association with corn roots from a field at Clayton, Union County.

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) larval surveys on corn in MINNESOTA in the fall of 1978 showed a decrease from 1977 population levels except in the west-central district. The overwintering larval survival in the spring of 1979 was 53% compared with 22% for 1978. A larval parasite, *Eriborus terebrans* (an ichneumonid wasp), was recovered from corn borers in Redwood and Otter Tail Counties. Parasitism by *E. terebrans* was 1.8% from larvae in a sample of 110 cornstalks. *Beauveria bassiana* (a corn borer fungus) killed about 50% of the larvae before pupation and another 80% of the remaining pupae in this sample.

Most European corn borer light trap catches began in mid-June, 2 weeks later than usual, with most stations in southern Minnesota recording peak emergence at the end of June. In northern Minnesota, the Crookston and Sleepy Eye stations recorded peak numbers in mid-July. First generation adults began to emerge by August 1, and reached a peak during the second and third weeks of August. Peak numbers were much lower than in the previous 2 years with no appreciable impact on corn.

The fall European corn borer larval surveys in Minnesota were conducted in 160 corn fields in 32 counties. All districts showed a population decrease from the 1978 levels. Percent corn plants infested and the number of borers per 100 plants in 1979 (and 1978) by district: West-central--50% and 64 (67% and 187), central--40% and 29 (55% and 151), east-central--48% and 33 (62% and 80), southwest--38% and 37 (67% and 180), south-central--46% and 61 (60% and 69), and southeast--36% and 27 (39% and 36). Statewide averages were 43% and 42 (60% and 104). Damage to corn shanks in 1979 was 11.5% compared with 20.9% in 1978. Corn ear droppage was 0.1% compared with 1.1% in 1978. Based on a December 1979 price of \$2.06 per bushel of corn for grain, the estimated loss from ear droppage was \$1.18 million.

About 20,000 ha of field corn in Minnesota was treated for the European corn borer. Control cost for field corn based on an average of \$12.50 per hectare amounted to \$200,000. A total of 44,637.0 ha of sweet corn was grown in 1979. Control costs for European corn borer, CORN EARWORM (*Heliothis zea*), and CORN ROOTWORMS (*Diabrotica* spp.) in sweet corn at the rate of \$11.25 per hectare, with at least 3 sprays, reached \$1.5 million.

European corn borer pupation in WISCONSIN began at 137 degree-days (base 10°C) around May 15. The first adults were detected on May 29 near Spring Green in Sauk County, and by May 30 a gravid female was noted at Spring Green on corn. By June 21, all adults had emerged in southern Dane County at Oregon. Adult activity peaked about June 12 in the Madison area. Due to late planting, few corn fields were susceptible to larval damage before June 15. By the last week of June, larval infestations affected an overall average of 10% of the plants, but ranged 0-88% with the heavier infestations in the tallest corn.

The first European corn borer generation in Wisconsin began pupating by July 12 and the first adults of the second flight were detected by July 20 at Oregon. Egg laying was noted on July 30. Some sweet corn fields had 10% of the plants infested by August 2, and several Rock County sweet corn fields had infestations on 40% of the plants by August 23. The fall abundance survey in September and October yielded an average of 55 European corn borer larvae per 100 plants, above the 5- and 38-year averages of 43 and 44 per 100 plants.

European corn borer in MICHIGAN damaged sweet corn. Although first generation counts were very heavy, the second generation was much lighter than in 1978 and damage was much less severe.

The second European corn borer generation in Michigan is usually the most damaging to corn, but 1979 was one of the worst years for the first generation. Losses must include costs of controls applied too late to have any effect. The second generation was a problem only in scattered fields. There was no third generation in 1979 as compared with 1978. The egg masses for the second (or, possibly in part, third) generation were found over an extended time. If a change in the life cycle is occurring, the borer would be more difficult to control than it has been in the past.

Survival of overwintering European corn borers in the southern one-half of ILLINOIS ranged from 55% to nearly 100%. Survival appeared to be inversely proportional to the percent infection of Nosema pyraustae (corn borer protozoan) which affects overwintering larvae. The average survival for the State was 78% (ranged from 55% to 100%). N. pyraustae infection averaged 52% (ranged 0-100%).

European corn borer pupation was first observed in the southern area during the last week in April. Pupation ranged 28-52% on April 30. By the third week in May, pupation was at 40% in the central area and 8% adult emergence had occurred in the southern area. Pupation was first observed in the northern area during the fourth week of May. Many adults were observed in grassy areas and on alfalfa throughout late May and early June over much of the State. Adult emergence was virtually complete in the southern area and just beginning in the northern area by the first week in June. Egg masses and whorl feeding were first observed in the southern one-third of the State by June 8 and in the central area by June 22. Egg laying in all areas of Illinois in 1979 occurred over a longer period of time than usual.

A high percentage of corn fields in Illinois had light European corn borer infestations of 5-30%, less than the economic threshold of 50%. Only a small percentage of corn fields had economic infestations. Pupation was reported in the southern area by the first week in July and in the central area by mid-July. Adult emergence began in the southern area during the third week in July. In general, the development of borers was somewhat delayed in 1979 when compared with 1978. Second-generation egg laying was observed in the southern areas by the fourth week of July and in the northern areas by the first week of August. Second generation infestations remained low in the southern area, but the potential for damage in the northern areas was high. Heavy rains and strong winds during early August, however, reduced second generation populations. Scattered late-planted fields were damaged by second generation borers, but widespread damage was averted.

The Illinois average of first generation European corn borer per 100 plants was 11.1, a 53% decrease from the 1978 population. The State average of second generation borers per 100 stalks was 102, a 64% decrease from the 1978 population. An estimated 103,000 ha were treated for first generation borer control and 14,000 ha were treated for second generation borer control in Illinois in 1979. A total of 117,000 ha was treated, a 73% decrease from that treated in 1978.

An estimated 50,600 ha of corn, mostly in the northwestern district, in INDIANA were treated for European corn borer at about \$8.00 per 0.4 ha. Larvae averaged 2 per stalk throughout the State in the fall of 1978, the highest average on record. Good snow cover favored winter survival. Most had pupated by May 14, in upright stalks, in Harrison County and even in the northwestern district a fifth of the larvae had done so. Adults appeared in blacklight traps by May 23 in Knox County, and egg masses were on corn by June 4 in Morgan and Union Counties. By June 28, heavily infested fields were present in the northwestern district, with very little stalk penetration.

Adult European corn borer flight reached its lowest point in mid-July, by which time the summer generation of females had begun to appear in southwestern Indiana. Both flights were extensive. The second was still going strong at the end of August when the blacklight program ceased. The fall survey counts taken in September averaged 127 borers per 100 stalks. The southern one-half of the State was below average; the northern one-third was heavily infested.

The north-northwest district averaged 463 European corn borer per 100 stalks, the highest district average ever recorded in Indiana. Heavy rains during the second generation egg laying probably accounted for the low populations in the south. A long egg laying period and droughty weather account for the very heavy populations in the northern one-third of the State.

European corn borer larvae began to pupate in KENTUCKY by late April in Fayette County and the first adult was collected in a blacklight trap on May 9 in that county. By late May, eggs were being observed throughout the State and the first larvae of the season were being observed in the southern area. Larval damage was becoming fairly noticeable by mid-July at which time about 25% of the fields in the south were exceeding the economic threshold level of 50% of the plants showing feeding damage. During July about 5% of the corn hectares was estimated to have been treated.

Damage by European corn borer in Kentucky was the heaviest in the southern one-half of the mid-western and central regions. Larvae of the first generation began to pupate by the last week in June and eggs of the second generation began to appear in the southern area corn fields by mid-July. The second generation was much lighter with relatively few fields receiving economic damage. The fall infestation survey revealed an average of 21% of the plants having been infested and only 13 live larvae per 100 plants. These numbers are well below the high levels of the last couple of years and hopefully mean that problems in 1980 will be minimal.

Populations of European corn borer on corn in SOUTH CAROLINA continued to rise in 1979. Although estimates of population levels or yield losses are not available, this pest is definitely becoming an ever greater problem. Sweet corn and bell peppers were the hardest hit. Controls are not always effective.

European corn borer larval damage to corn [25-91 cm tall] in NORTH CAROLINA became of concern June 4-7 to farmers scattered across the entire Coastal Plain. Surveys conducted June 4-15 in problem fields revealed that about 10% of the 150 fields sampled harbored 1 or more larvae in 50% of the plants, counts above the treatment threshold. Larval damage from the third and fourth generations in July and August resulted in weak stalks increasing the lodging potential. Lodging due to larval damage, stalk rot, and tropical storm David, September 4-7, resulted in 15-50% loss in about 7% of the fields. The potential for more serious lodging existed but harvesting conditions were ideal during late September.

First European corn borer generation activity in DELAWARE was moderate with economic populations occurring in early planted corn scattered throughout the State. The fall population averaged 154 borers per 100 cornstalks, a significant reduction as compared to the high level of 569 per 100 stalks in 1978.

Early season damage by SOUTHWESTERN CORN BORER (Diatraea grandiosella) to corn in NEW MEXICO was minimal, but heavy populations developed in August and September in corn grown for grain and silage in Union, Quay, Curry, and Roosevelt Counties. Populations in Hidalgo and Luna Counties were lighter, except for a field near Animas, Hidalgo County, where over 80% of the stalks had overwintering larvae in roots in November. Lodging was estimated at 20% in Curry and Roosevelt Counties, 15% in Union and Quay Counties, 5% in Luna County, and 8-40% in Hidalgo County.

Second generation southwestern corn borer infestations in OKLAHOMA were generally heavy in untreated corn in the panhandle counties. Both the first and second generations were about 2 weeks later than normal in 1979. Damage in KENTUCKY remained insignificant for the third consecutive year. A few larvae could be found in corn in the Purchase Region in the fall, but populations remained very low, well under 1 larva per 100 plants even along field borders.

Treatments for LESSER CORNSTALK BORER (Elasmopalpus lignosellus) in FLORIDA were required on somewhat less than 4,000 ha of 40,468.7 ha of sugarcane in the Everglades.

In the Everglades sugarcane growing area of FLORIDA, the SUGARCANE BORER (Diatraea saccharalis) population remained at generally normal levels. Of 40,468.7 ha, a total of 6,475.0 ha was treated. Damaged joints varied from less than 1% to 8%, averaging a little less than 3%.

The earliest reports of ARMYWORM (Pseudaletia unipuncta) infesting seedling corn were May 7-10 from widely scattered Coastal Plain and Piedmont counties of NORTH CAROLINA. All early reports revealed subeconomic damage. Economic infestations began developing in no-till Piedmont fields planted into rye cover crops. On June 1, 15 damaged fields ranging 1-8.1 ha were reported. Surveys June 4-7 revealed widely scattered and variable infestation levels. Infestations were observed with 75% of the plants harboring 1-3 larvae. Damage was concentrated in no-till corn planted in lush grass or small grain cover crop. Lush rye appeared the most attractive. Controls were applied in most cases before economic injury resulted. All armyworm infestations subsided by June 20. The action threshold was reached on about 80 ha of Piedmont no-till corn. Larvae damaged corn at scattered locations throughout KENTUCKY from late May through mid-June. Although damage was heavy in isolated patches, armyworm problems were generally considered light and only about 4% of the corn hectares is estimated to have been treated.

Overall, armyworm in MICHIGAN was the most widespread of the general feeding insects, with corn being damaged most extensively. The Upper Peninsula and the northern and southwestern counties of the Lower Peninsula were the areas most affected. Several counties in the Upper Peninsula were especially heavily infested and at one time all Upper Peninsula counties reported damage to their crops. Control, as usual, was variable and there were the continuing problems of obtaining insecticides and aerial contractors. The worst problem was that the armyworm (other insects also) was not detected before the damage was heavy.

During the second week in July, FALL ARMYWORM (Spodoptera frugiperda) was observed damaging occasional corn fields in southern ILLINOIS. Damage was usually not serious except in late-planted fields. One very late-planted field in Perry County was virtually destroyed. Damage continued into mid-August in the southern area. An estimated 1,800 ha of corn were treated for all armyworms in 1979, 85% less than the hectares treated in 1978.

The first fall armyworm larvae of the season in KENTUCKY began to appear about mid-June but infestations remained light and spotty until late July and early August when economic damage occurred to scattered fields of late-planted corn throughout much of Kentucky. The heaviest and most widespread damage appears to have been in the central region. About 4% of the corn hectares was reportedly treated during 1979.

The fall armyworm population in FLORIDA was at normal levels, requiring chemical treatments on sweet and seed corn at Homestead, Dade County. Fall armyworm and CORN EARWORM (*Heliothis zea*) were the principal budworms and earworms on sweet corn in the Belle Glade area, Palm Beach County. They were controlled by recommended sprays; without these sprays, a marketable crop would be difficult to grow. Fall armyworm was lighter than normal early in the season at Alachua, Alachua County, but it was a serious pest on the fall crop of sweet corn.

Large 4th instar fall armyworm larvae were collected June 6-22 from sweet corn and late-planted field corn in northeastern NORTH CAROLINA. Infestations remained below the action threshold until July 20-27. A survey of the Piedmont counties July 30 to August 2 revealed about 80% of the pretasseling corn fields with fall armyworms present. Infestation levels ranged 7-90% of the plants infested and averaged 37%. Heaviest infestations were concentrated in the western one-half of the Piedmont and southern mountain counties of Buncombe, Transylvania, Polk, Henderson, and Rutherford. However, economic infestations were scattered throughout the western mountains.

On August 2, late-planted corn on 4,046.9 ha in North Carolina had not reached the tasseling stage. About 3,000 ha were treated for fall armyworm in the southern and western mountain counties. No estimates were available for the northern mountains or western Piedmont. The population decline due to pupation and natural controls was evident by August 17 in corn; however, scattered infestations began appearing in pastures and hay. Record cool temperatures (lows near 10°C for 3 nights) August 12-19 across the Piedmont and Mountains retarded fall armyworm population development. The usual infestation did not reach economic levels in the seed heads of sorghum. Larvae feeding in the whorls of field corn in DELAWARE were detected much earlier than usual, first week of June, in southern Kent and Sussex Counties. Heavy populations were also observed in silks and ears of late-planted corn in August. Heavy populations occurred in blacklight traps, pheromone traps, and sweet corn fields from late July through September.

Populations of CORN EARWORM (*Heliothis zea*) in WASHINGTON were unusually light through most of the growing season. Controls were not needed, except on very late silking sweet corn in early September where infestations were moderate. Populations in NEW MEXICO were lighter in most corn and sorghum statewide but did cause much damage in isolated fields, principally in the northeastern area. Infestations in OKLAHOMA were, as usual, heavy in corn in all areas from early June to early August. Infestations were reported in whorls of sorghum from late July to early September but damage to sorghum heads was rarely found.

Corn earworm was lighter than usual early in the season on sweet corn in the Alachua area of FLORIDA. It gradually increased to normal levels later in the season. In the Hastings area, St. Johns County, commercial corn and sorghum production is undergoing a marked decline due to insect control difficulties and low profit margin. In the Sanford area, Seminole County, light populations of this species and FALL ARMYWORM (*Spodoptera frugiperda*) infested sweet corn during spring and summer in experimental plots. Infestations in SOUTH CAROLINA were about normal. Most corn fields were infested with little yield reduction.

Surveys of the corn earworm population on field corn in Cumberland, Bladen, Robeson, and Columbus Counties, NORTH CAROLINA, July 16-26, revealed that 36-86% of the ears (averaged 67%) harbored larvae. These results were 10% above the 1978 ear infestation levels indicating a higher than average potential of

corn earworm damage in the southern Coastal Plain. Ear infestations ranging 34-96% in the central Coastal Plain counties of Lenoir, Duplin, and Wayne also indicated a high probability of the third generation damaging soybeans. Surveys completed July 26 in the northern counties of Edgecombe, Halifax, and Northhampton revealed that 2-25% of the ears were infested, suggesting a light to moderate potential for damage in soybeans from the third generation.

One male BLACK CUTWORM (*Agrotis ipsilon*) moth was collected from a pheromone trap in Champaign County, ILLINOIS, on March 19. A few male moths were collected in pheromone traps in the southern and central areas during the last week in March. Blacklight and pheromone trap catches increased steadily throughout April and early May, then tapered off during the third week in May. Some cutting of young corn plants occurred during the third week in May in southern Illinois. The wet weather delayed planting, and the potential for damage was high. By the fourth week in May, the percent of cut corn plants ranged 2-5% throughout much of the west-central and southwestern areas. Corn was in the 2- to 4-leaf stage and larvae in 3rd to 6th instars ranged 13-31.8 mm. long. One field in St. Clair County showed 25% cut plants.

Black cutworm damage to corn in Illinois in 1979 was not as widespread as in 1978. Extensive damage occurred in the west-central and southwestern areas, but only scattered reports of injury were received from other areas of the State. Dry, cloddy soil conditions hampered emergency control measures in some areas, but overall emergency treatments were effective. An estimated 38,000 ha of corn were replanted in 1979 because of cutworm infestations, less than one-fourth the hectares replanted in 1978. In addition, an estimated 171,000 ha of corn were emergency-treated for control, 73% less than the hectares treated in 1978. Some of the replanted and treated hectares were for SANDHILL CUTWORM (*Euxoa detersa*) and DINGY CUTWORM (*Feltia ducens*) in the central, western, and northwestern areas.

Black cutworm larvae were damaging corn fields in KENTUCKY from early May until early July, but the heaviest damage occurred during the first one-half of June. This year the heaviest populations occurred in the southern one-half of the mid-western region as compared with 1978 when the most serious problems were reported from the northern one-half of the mid-western region. Around 7% of the corn hectares is estimated to have been treated during 1979, up slightly from the 4-5% reportedly treated in 1978. Cool, wet spring weather appeared conducive to black cutworm injury in NORTH CAROLINA; but, only a few fields were observed with damage and no fields with economic damage were observed or reported.

Larvae of a NOCTUID MOTH (*Hydroecia immanis*) once again caused some damage to a few corn fields in northern ILLINOIS. Although the damage was not estimated, it was considered a minor problem. The appearance of this corn pest for the second consecutive year is worthy of mention.

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) in NEW MEXICO became more abundant in corn fields in Union and Quay Counties. Most severe infestations were in northern Union County.

Adult surveys of NORTHERN CORN ROOTWORM (*Diabrotica longicornis*) and *D. virgifera* in MINNESOTA were made in 142 corn fields in 43 counties. All fields surveyed were in corn the previous year. Populations increased in all but 1 district from 1978. The average number of beetles per 0.4 ha in 1979 by

district (compared with 1978) for northern corn rootworm and western corn rootworm was as follows: West-central--19,326 (17,801), central--15,942 (20,842), east-central--18,714 (5,095), southwest--44,652 (34,331), south-central--22,329 (16,816), and southeast--37,645 (34,109). The statewide average was 26,435 (21,499). The ratio of northern corn rootworm to western corn rootworm was 88:12, almost the same as in 1978. Lodging was 1% statewide, about the same as in 1978. An estimated 800,000 ha were treated at planting time for corn rootworm larval control. The cost of control at the rate of \$17.50 per ha amounted to \$35 million.

CORN ROOTWORM (*Diabrotica* spp.) larvae on corn in WISCONSIN were noted to be 0.64 to 0.953 cm long by June 28 in Rock County and pupae were noted in the same area on July 12. *D. longicornis* adults were observed July 13 in Jefferson County and *D. virgifera* adults were noted in Grant County on July 16. Numbers were heavier than the 1978 adult and egg surveys would have suggested. By late summer, poor insecticide performance was reported by growers in several areas, perhaps explaining the higher than expected number of rootworm adults. Silk feeding by the adults was of little consequence since pollination normally occurred before silk feeding became evident. Leaf feeding on late sweet corn by western corn rootworm adults was commonly encountered in August, with counts of 4 per sweet corn plant being typical. A statewide survey of adults in mid-August revealed a State average of 2.3 per plant (3 times more than 1978), and the egg survey in September yielded a State average of 9 eggs per 0.5 L of soil (nearly 2 times more than in 1978).

D. virgifera and *D. longicornis* egg hatch was suspected throughout the northern two-thirds of ILLINOIS during late May and early June. First instar larvae were reported for the first time during the third week in June. Third instar larvae were observed feeding on and killing seedling sweet corn in a research plot in Champaign County. First through third instar larvae were found feeding on field corn roots in a research plot in Ogle County during the same week. Western and northern corn rootworm adults began emerging about the second week in July throughout the State. Males were noticed first, and females emerged shortly thereafter. By the third week in July, there were reports of 15-18 adults per plant in scattered corn fields in the central area. Many fields had an average of 1 or 2 adults per plant. Adult numbers peaked by the third week in August, with common reports of 4-10 adults per plant (some as high as 25-50 adults per plant).

Peak egg laying by western corn rootworm and northern corn rootworm in Illinois was suspected during the third and fourth weeks in August. Larval damage was more common in 1979 than in 1978 but was not extensive. Several reports of insecticide failures were probably a result of very dry weather after planting. Most soil insecticides need some moisture to move them into the root zone. Damage to pollination by adults was light in 1979. Although there were many instances where adult numbers were larger than the economic threshold for silk-clipping injury (5 or more per plant), early pollination and good growing conditions prevented serious problems. An estimated 71,600 ha of corn were treated for control in 1979, 43% less than the hectares treated in 1978.

The State average of adults for both species per 100 plants was 92 in Illinois, compared with 61 in 1978. The percent of surveyed corn fields with 100 or more adults per 100 plants was 61 in the northern, 42 in the central, and 6 in the southern areas. Western corn rootworm was taken in corn fields in 13 counties in Illinois for new county records. See CPPR 4(8):79, 4(43):835, and 5(1):3-4.

First instar larvae of *D. longicornis* and *D. virgifera* in INDIANA were collected from grain corn roots on June 11 in Tippecanoe County, last instars by June 21, and a prepupa on June 26. The first western corn rootworm adult was taken in Clay County on July 2 and the first adult collected on sticky traps July 9-11 (during the week ending July 19 in 1978); in the same traps (in an untreated field in Tippecanoe County), the first northern corn rootworm was taken during the week ending July 13 (July 12 in 1978). Western corn rootworm catches averaged 14.9 per trap per day (8.4 in 1978), northern corn rootworm averaged 1.5. The ratio of northern corn rootworm to western corn rootworm in 1978 and 1979 was, respectively, 30:70 and 8:92. Means of adult western corn rootworms per stalk during the August survey were as follows by district: Northwest 0.47, north-central 0.69, northeast 0.28, west-central 0.55, central 0.31, east-central 0.30, southwest 0.06, south-central 0.04, and southeast 0.01. These figures do not differ significantly from the 1978 figures except that in the northeast, the 1979 figure is about one-half that of 1978, and the west-central is double that of 1978.

Means of northern corn rootworm adults per stalk in Indiana during the August survey were as follows by district: Northwest 0.05, north-central 0.20, northeast 0.16, west-central 0.1, central 0.05, east-central 0.36, southwest 0.05, south-central 0.43, and southeast 0.35. Figures for 1978 were generally higher than 1979 figures. Ratios of western corn rootworm to northern corn rootworm ranged from 90:10 in the northwest to 4:96 in the southeast. Treatment for the protection of silks was rarely necessary, and little was applied. Preliminary estimates of soil insecticide usage were put at 45% of the total hectares. Western corn rootworm adults were collected for the first time from four new counties. See CPFR 4(32):626 and 627.

D. virgifera was identified as being in KENTUCKY for the first time this summer. Specimens were collected on corn in Lyon and Daviess Counties, but populations are still well below economic numbers. See CPFR 5(1):7. Moderate to high numbers of *D. longicornis* adults were observed feeding in corn silks in northern Kent and New Castle Counties, DELAWARE.

SOUTHERN CORN BILLBUG (*Sphenophorus callosus*) was a serious pest of corn in SOUTH CAROLINA in 1979. Crop loss probably approached 5%. Southern corn billbug and MAIZE BILLBUG (*Sphenophorus maidis*) adults in NORTH CAROLINA continued to be the major soil insect concern to corn growers of the Tidewater and Coastal Plain counties, including and south of a line from Johnston County to Tyrrell County. Expansion of the infested area westward continued. Cold, wet conditions prevailed during April and May, which resulted in slower plant growth and delayed seeding, producing a long susceptibility period for infestation. Estimates from the Tidewater and southern Coastal Plain counties of 80% plants damaged and 60% stand lost in fields of 4+ ha were common April 27 to May 18. Replanting was prevalent in fields of 8.110 ha; in most damaged fields, the pattern was severe seedling damage to 5-15 border rows. Recent surveys indicate that billbugs can be detected in 60-70% of the southern Tidewater and Coastal Plain fields. About 60% of the corn hectares in the Coastal Plain counties receive insecticides directed toward billbugs.

CORN FLEA BEETLE (*Chaetocnema pulicaria*) adults were abundant in corn fields throughout KENTUCKY during May and a few growers became concerned enough to apply chemical controls, although in most cases the corn was easily able to outgrow the damage.

SUGARCANE BEETLE (*Eutheola rugiceps*) damage was significant in corn in SOUTH CAROLINA. This species along with CARROT BEETLE (*Bothynus gibbosus*) caused a probable 2-3% stand reduction. Severe damage by sugarcane beetle adults in NORTH CAROLINA was reported May 16-30 in southern Piedmont corn fields. Stand loss, 60-90%, occurred in about 25 fields 2-35 ha in size. Union, Anson, Stanly, Cabarrus, and Randolph Counties harbored the heaviest infestations. Corn planted into sod 5+ years old with no insecticide was most severely infested. A few growers replanted 6.1-8.1 ha.

A SCARAB (*Dyscinetus morator*) was reported on corn in NORTH CAROLINA, May 11-25, from Hyde and Craven Counties. Damage was observed around the base of seedlings in 10-15 fields with wet, high organic soils (8+% organic matter). This is the first report of economic damage from this pest in the State.

Overall, WIREWORMS in FLORIDA, primarily *Melanotus communis*, were light to moderate on sweet corn in the Belle Glade area. Of 12,950 ha of sweet corn in the Everglades area, 8,093.7 ha were flooded, killing the wireworms. Light to moderate damage occurred on the remaining 4,856.2 ha, where controls, usually phosphatic-type insecticides, were necessary.

The treatment level for SORGHUM MIDGE (*Contarinia sorghicola*) in ARKANSAS was surpassed, for the most part, only in late-blooming grain sorghum fields in the northeastern area during August. Otherwise, adults were relatively light throughout the season. This species was one of the major sorghum pests in FLORIDA. The population was slightly heavier than in 1978, but the excessive summer rains caused the population to decline, and damage was light.

CORN LEAF APHID (*Rhopalosiphum maidis*) was present in sorghum from late May to early September in OKLAHOMA. Damage was generally light although scattered heavy infestations were found in mid- and late July.

Small colonies of corn leaf aphid in ILLINOIS were first observed on 10 to 25-cm tall milo in Alexander, Pulaski, and Massac Counties during the first week of June. By the first week of July, many fields in the southern area had greater than 50% of the whorls infested with colonies of about 20 aphids. By the second week in July, many corn fields in the southern two-thirds of the State had about 60% of the whorls infested with usually fewer than 10 aphids per whorl. Populations began declining by late July and early August. Adequate moisture and good corn-growing conditions during July and August virtually eliminated possible aphid problems. An estimated 800 ha of corn were treated for corn leaf aphids in 1979, 94% less than that treated in 1978.

Corn leaf aphid was of no consequence in grain corn in INDIANA in 1979. Populations were generally not present until after the tassel had emerged. Large numbers did, however, develop later in the season; 47% of the plants having aphids present during the fall corn insect survey, the heaviest populations in the northern one-half of the State. A susceptible variety, N28 x B37, grown to monitor aphid pressure, averaged 104 aphids per stalk compared with an average of 164 in 1978. Alates were observed in September and October on winter wheat to which they moved when the corn was no longer a suitable host. Heavy populations on corn occurred throughout DELAWARE in June. Parasites and predators eventually suppressed the populations below economic levels.

GREENBUG (*Schizaphis graminum*) in OKLAHOMA was active on young sorghum in Tillman County by the middle of May. By the end of May, moderate to heavy infestations were present in several areas. During the first half of June damage was reported from many counties in the northwest, north-central, northeastern,

west-central, central, east-central, and southwestern areas. Many fields of young grain and forage sorghums were treated for greenbugs and a number of fields were destroyed and had to be replanted. Numbers decreased during the second half of June due to chemical controls, rainfall, and predation by lady beetles and by the end of June, infestations had virtually disappeared. Infestations were again reported in the panhandle and north-central areas the last week of July. Heavy numbers (2,000-4,000 per plant) were found in some areas in the panhandle during the first half of August and some fields were treated, but numbers never increased past moderate in the north-central counties. Chemical controls, predators, and parasites had virtually eliminated infestations in both areas by the end of August.

CHINCH BUG (*Blissus leucopterus leucopterus*) was more common in sorghum in OKLAHOMA in 1979 than in any year since 1966. Activity was reported from early May to early September in the north-central, northeastern, central, south-central, and southeastern areas. Heavy infestations damaged, or even killed, young sorghum in several northeastern counties and in a few areas in the east-central, south-central, and southeastern counties during July and early August.

GRASSHOPPER nymphs, several species, began hatching during the fourth week in May in the southern one-half of ILLINOIS. Large numbers were being reported in roadsides and other grassy areas in most of the State by mid-June. One estimate in Sangamon County was 100 nymphs per 0.8 sq m. The hot, dry weather in June was favorable for grasshopper survival and development. Leaf-feeding damage on both corn and soybeans was common in field edges during June and July. The predominant species in 1979 were *Melanoplus differentialis* and *Melanoplus femurrubrum*. An estimated 118,000 ha of noncropland, 36,000 ha of corn, 91,900 ha of soybeans, and 40,000 ha of alfalfa were treated for grasshoppers in 1979. The total treated area represents an increase over that treated in 1978. Substantial economic crop damage did not occur because growing conditions were excellent in July and August. Grasshoppers averaged 2.4 per 0.8 sq m in roadside areas statewide during late August.

Grasshoppers in MICHIGAN damaged corn. The areas most affected were the northern Lower Peninsula and the west-central and east-central counties. Damage was especially heavy in several northern Lower Peninsula counties where small fields of crops are interspersed among large areas of the idle lands that are breeding areas for grasshoppers. Control with insecticides was good, except for continuing reinfestation in the northern counties. The continued warm weather in late summer of 1978 and the slow, dry spring of 1979 contributed to the grasshopper problem. The warm early fall of 1979 could mean a grasshopper problem in 1980.

SPIDER MITE, principally BANKS GRASS MITE (*Oligonychus pratensis*), populations in corn and sorghum were lighter in NEW MEXICO in 1979 than in 1978 but heavy infestations did develop in some fields that were stressed because of lack of rain or irrigation throughout the State.

Banks grass mite infestations were very erratic on corn in OKLAHOMA in the panhandle area in 1979 but heavy numbers were present in some fields during August. Moderate to heavy numbers were also found in corn in Roger Mills, Caddo, and Oklahoma Counties and light numbers were found in sorghum in several north-central counties.

TWOSPOTTED SPIDER MITE (*Tetranychus urticae*) infestations in WASHINGTON were heavy on corn throughout Grant County. Most insecticides used were applied late, at silking or later, and proved ineffective.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

POS
L

NATIONAL AGRICULTURAL LIBRARY



1023169291

Library

347033NIDLANESH RI CPR-0001
DR IVAN W KIRK ASST AD
USDA SER SR
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



Q5B
823
2453

3/20

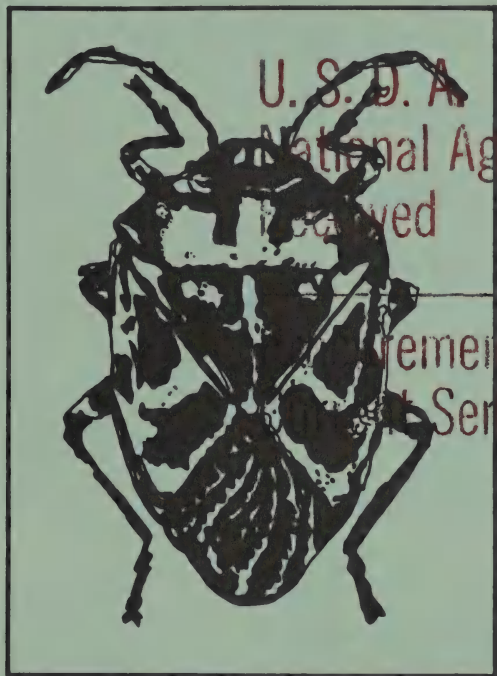
operative PLANT PEST REPORT

February 15, 1980
U.S. DEPARTMENT OF AGRICULTURE Vol. 5
No. 3

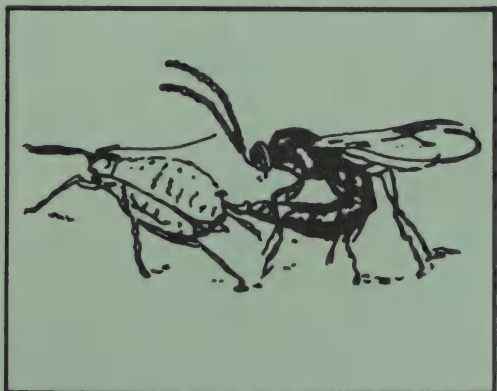
Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY

MAR 13 1980



RECEIVED



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Detection

- A FUNGUS new to the United States on leatherleaf fern in Florida. (p. 73).

New State records include PINWOOD NEMATODE in South Carolina and Pennsylvania, a COCKROACH in Texas, a EULOPHID WASP in Wisconsin (p. 74), and a WEEVIL in Ohio. (p. 76).

New county records on page 76.

New hosts for PINWOOD NEMATODE in South Carolina and Pennsylvania. (p. 74).

First field infection of corn by AMERICAN WHEAT STRIATE MOSAIC VIRUS in United States in South Dakota. (p. 71).

Special Reports

- Summary of Pest Conditions in the United States - 1979
 - Small Grains. (p. 78-84).
 - Turf, Pastures, Rangeland. (p. 84-85).

Reports in this issue are for the week ending February 8 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane	Ornamentals
Diseases.....71	Diseases.....73
	Insects.....73
Small Grains	
Insects.....71	Forest and Shade Trees
	Diseases.....73
Forage Legumes	
Insects.....71	Man and Animals
	Insects.....74
Soybeans	
Diseases.....72	Households and Structures
Insects.....73	Insects.....74
Deciduous Fruits and Nuts	
Insects.....73	
Beneficial Organisms and Their Enemies	
Insects.....74	
Federal and State Programs	
Insects.....75	
Hawaii Pest Report.....75	
Light Trap Collections.....75	
Detection.....76	
Corrections.....76	
Pest Interceptions of Quarantine Significance at Ports of Entry.....77	
Summary of Pest Conditions in the United States - 1979	
Small Grains	
Diseases.....78	
Insects.....81	
Turf, Pastures, Rangeland	
Insects.....84	

CORN, SORGHUM, SUGARCANE

DISEASES

SOUTHERN RUST (*Puccinia polysora*) - KANSAS - New county records collected from Zea mays (corn) September 25-27, 1979. All collected and determined by T. Sim, IV. (T. Sim, IV).

<u>District></u> <u>County</u>	<u>Prevalence</u> <u>(%)</u>	<u>Severity</u> <u>(%)</u>	<u>City</u>	<u>Date</u>
NC> Clay	60-80	10	Clay Center	Sep 25
NC> Republic	80-100	25-40	Norway	Sep 25
NC> Jewell	100	25	Webber	Sep 25
NC> Washington	90	10	Hanover	Sep 27
NE> Riley	90	10	Randolph	Sep 27
NE> Jefferson	80-100	10-25	Grantville	Sep 26
NE> Leavenworth	10-100	5-10	Tomganoxie	Sep 26
NE> Atchison	80-95	5-10	Monrovia	Sep 26
NE> Doniphan	100	25	Purcell	Sep 26
NE> Brown	100	25	Robinson	Sep 26
NE> Pottawatomie	100	25-40	Onaga	Sep 26
NE> Nemaha	100	25	Centralia	Sep 26
NE> Marshall	trace	1	Vermillion	Sep 26
EC> Shawnee	100	25-40	Kiro	Sep 26

AMERICAN WHEAT STRIATE MOSAIC VIRUS - SOUTH DAKOTA - First report of field infection in corn in United States. District> County= collection data from Zea mays (corn): SE> Clay= in field corn on southeast experiment farm at university, September 24, 1979, by V.L. Jons and W.S. Gardner, determined by R.G. Timian and V.L. Jons. (V.L. Jons).

SMALL GRAINS

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= counts per 0.3 row m of wheat week ending February 1: WC> Washita= up to 3 in favorable spots in 259-ha field in Colony area. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - TEXAS - District> County= adults per 0.3 row m of small grains January 21: Northern Low Plains> Wilbarger= 100-300 in spots in early fields. (E.P. Boring, III). MISSISSIPPI - District> County= status on winter wheat: EC> Clay and Monroe= light, 0-4 per 0.09 sq m, during surveys; no damage observed. (R. Anderson).

WINTER GRAIN MITE (*Pentaleus major*) - TEXAS - District> County= counts per 0.3 row m of small grains January 21: Cross Timbers> Archer= up to 102. (E.P. Boring, III).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - OKLAHOMA - District> County= eggs per 0.09 sq m of alfalfa samples collected January 26: C> Payne= averaged 39. (D.C. Arnold). INDIANA - District> County= eggs per 15 sq m of alfalfa extracted by

blender: SC> Harrison= alfalfa weevil eggs averaged 54.2 in 60 samples in 1 field of new alfalfa planted 1979 and sampled January 20, 1980, 23% of eggs yellow, indicated recent egg laying or inviability. Averaged 33.4 in same field sampled December 8, 1979. (R.W. Meyer).

EGYPTIAN ALFALFA WEEVIL (*Hypera brunneipennis*) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Maricopa= adults 4-180 and SW> Yuma= larvae 400, adults occasional to 60, infestation 10% at university experiment station at Yuma. (M. Tanaka et al.).

ARMY CUTWORM (*Euxoa auxiliaris*) - KANSAS - District> County= status on alfalfa January 25: SC> Edwards= averaged 5 per 0.09 sq m in established field (earlier estimate about 4 per 0.09 sq m), larval length 6-25 mm, green shoots at plant bases showed heavy damage in spots (G.A. Salsbury); Reno= larvae (length 12 mm) trace in established field, none in 4 other established fields and 1 seedling field; and Sedgwick= none in 9 established fields and 3 seedling fields. All fields in Arkansas River Valley between Hutchinson and Valley Center. (R.J. Bauernfeind, V.B. Orr).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - District> County= immatures and adults per 100 sweeps of alfalfa: C> Maricopa= 360; Pinal= 24-108, populations very heavy per 5 plants in Toltec and Eloy areas; and SW> Yuma= very light to 120. (M. Tanaka et al.).

A LEAFHOPPER (*Agallia constricta*) - FLORIDA - District> County= adults per 100 sweeps of alfalfa January 30: C> Alachua= 25 at Gainesville, increased due to unseasonably warm temperatures. (F.W. Mead).

GARDEN FLEAHOPPER (*Halticus bractatus*) - FLORIDA - District> County= adults per 100 sweeps of alfalfa January 30: C> Alachua= 25 at Gainesville. Counts heaviest to date at this location and on this host, due to unusually warm January. (F.W. Mead).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - District> County= adults per 100 sweeps of alfalfa: C> Maricopa= 5-100. (M. Tanaka et al.).

SOYBEANS

DISEASES

BROWN STEM ROT (*Phialophora gregata*) - WISCONSIN - New county records collected from soybeans September 11-14, 1979. (O.L. Lovett).

District> County	Nearest city	Date	Collector and determiner
SC> Green	Monroe	Sep 14	R. Nordren
SW> Lafayette	Gratiot	Sep 12	R. Nordren
SE> Milwaukee	Brown Deer	Sep 13	T. Smith
WC> Pierce	River Falls	Sep 13	N. Kramer
WC> St. Croix	Hudson	Sep 13	N. Kramer
WC> Dunn	Cedar Falls	Sep 11	N. Kramer

SOYBEAN CYST NEMATODE (Heterodera glycines) - MINNESOTA - New county record. District> County= collection data from soybeans: SC> Martin= near Fairmont, September 5, 1979, by R. Loudan, determined by M. Schreiber, and confirmed by A.M. Golden. (D. Sreenivasam).

INSECTS

GRAPE COLASPIS (Colaspis brunnea) - ARKANSAS - Survey for overwintering larvae in harvested soybean fields, soil core samples (diameter 10 cm) from 12 random sites in each field and processed by wash/brine flotation technique (M.A. Mayse).

District> County	Larvae per 12 cores at depth of		Field number
	9-18 cm	18-23 cm	
SE> Ashley	6	30	1
SE> Ashley	0	0	2
SE> Ashley	6	0	3
SE> Ashley	0	0	4
SE> Ashley	0	2	5

DECIDUOUS FRUITS AND NUTS

INSECTS

PECAN WEEVIL (Curculio caryae) - KANSAS - District> County= larvae on pecans in early January: SE> Cowley= infested heavy percentage of pecans from trees in resident landscapes at Arkansas City. (K.O. Bell, Jr. et al.).

ORNAMENTALS

DISEASES

A FUNGUS (Cylindrocladium heptaseptatum Sobers, Alfieri, & Knauss) - FLORIDA - New United States record. District> County= collection data from Rumohra adiantiformis (leatherleaf fern) plants: C> Volusia= moderately affected 30% of 1-ha planting at fernery at De Land, December 21, 1979, collected by C.R. Roberts, determined by S.A. Alfieri, Jr. A commonly occurring FUNGUS (Cylindrocladium pteridis) also affected planting at same location. Plants in fernery about 5 years. (C.R. Roberts). C. heptaseptatum reported from this fern species in Honduras. (S.A. Alfieri).

INSECTS

JUNIPER WEBWORM (Dichomeris marginella) - OREGON - Area> status on Juniperus squamata cv. Meyeri (Meyers Juniper): Willamette Valley> recent 10°C weather in northern area caused overwintering larvae to resume feeding activities; webbing prevalent, particularly in landscape plantings. (R. Long).

FOREST AND SHADE TREES

DISEASES

PINWOOD NEMATODE (Bursaphelenchus lignicolus) - ARKANSAS - New county record. District> County= collection data from Pinus sylvestris (Scotch pine): NE> Clay= at Rector, January 8, 1980, by J.E. Beville, determined by R.T. Robbins.

(M.A. Mayse). SOUTH CAROLINA - New State and host record for State. District> County= pinewood nematode collection data from Pinus virginiana (Virginia pine): NW> Oconee= larvae and adults on residential property, east of Seneca, January 2, 1980, collected by W. Witcher and G.E. Carter, determined by A. M. Golden and S.A. Lewis. (W. Witcher et al.). PENNSYLVANIA - New State and host record for State. District> County= collection data from Pinus cembra (Swiss stone pine): SW> Allegheny= immatures and adults on estate at Fox Chapel, August 27, 1979, collected by L.P. Nichols, determined by J.R. Bloom and W. Friedman. (K.C. Kim).

MAN AND ANIMALS

INSECTS

TROPICAL HORSE TICK (Anocentor nitens) - FLORIDA - District> County= status on horses: S> Broward= adults heavy on ears of 3 of 14 at stable at Fort Lauderdale, January 8, nymphs and adults lightly infested ears, manes, and tails of nearly all 52 in herd at same location, all stages heavy on ears of 7 of 14 at stables also at same location, January 18 (R.B. Shumate), and Dade= nymphs and adults light to moderate on ears and manes of 10 of 28 at ranch southwest of Miami, January 10 (S.L. Stone).

HOUSEHOLDS AND STRUCTURES

INSECTS

A COCKROACH (Blatta lateralis) - TEXAS - New State record. District> County= collection data from buildings: Trans-Pecos> El Paso= about 30 live specimens collected in 2 buildings at Fort Bliss, June 6, 1979, by R.D. White and F. Maloney, determined by D.G. Cochran. Specimens also in vacant family building and at Biggs Field at same location and on same date. Infestations so extensive and heavy, eradication efforts not reasonable. (J.A. Jackman).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

A EULOPHID WASP (Tetrastichus julis) - WISCONSIN - New State and county records taken from Oulema melanopus (cereal leaf beetle) in Avena sativa (oat) fields. All collected July 3-19, 1979, and determined by V.E. Montgomery. (T.L. Burger).

District> County	Parasitism (%)	City	Date	Collector
SE> Walworth	34	Bloomfield	Jul 3	M. Conrad
SE> Milwaukee	100	near Oak Creek	Jul 19	S. Saad, K. Winston
SE> Ozaukee	100	Saukville	Jul 19	S. Saad, K. Winston
EC> Sheboygan	88	Greenbush	Jul 17	S. Saad, K. Winston
EC> Calumet	86	Charlestown	Jul 18	S. Saad, K. Winston
EC> Fond du Lac	100	Auburn	Jul 18	S. Saad, K. Winston, and G. Grumann
EC> Kewaunee	100	Carlton	Jul 18	H. Hauser
EC> Manitowac	100	Centerville	Jul 18	S. Saad, H. Hauser, and K. Winston

FEDERAL AND STATE PROGRAMS

INSECTS

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - District> County= status: SW> Yuma= adults flying. (M. Tanaka et al.).

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - Found outside quarantine area. District> County= status: NC> Lancaster= on shoulder of road December 11, 1979, and NW> Anderson= on ground of industrial company January 21. (W.K. Glenn, Jr. et al.).

SCREWWORM (Cochliomyia hominivorax) - No cases reported from continental United States January 20-26. Total of 21 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 424 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 19,204,680, all in Texas. Total of 196,983,962 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - Infestations of LEAFMINER FLIES (Liriomyza spp.) moderate to heavy on 0.1 ha of cucumber at Anahola, Kauai. DIAMONDBACK MOTH (Plutella xylostella) infestations and foliar damage heavy on 0.1 ha of head cabbage [heading] at Wailua Homestead, Kauai. Up to 3 larvae per leaf noted. (D.T. Sugawa, L.M. Nakahara).

Fruit and Ornamentals - GIFFARD WHITEFLY (Bemisia giffardi) infestations severe on backyard citrus trees at Waimea, Kauai. Trees accompanied with heavy sooty mold buildup. (L.M. Nakahara).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 1/29-2/4, BL - BEET ARMYWORM (Spodoptera exigua) 2, BLACK CUTWORM (Agrotis ipsilon) 3, VARIEGATED CUTWORM (Peridroma saucia) 1. FLORIDA - Gainesville, 1/31-2/6, BL - ARMYWORM (Pseudaletia unipuncta) 2, Black cutworm 1, GRANULATE CUTWORM (Feltia subterranea) 3.

DETECTION

NEW UNITED STATES RECORD

DISEASES

A FUNGUS (Cylindrocladium heptaseptatum Sobers, Alfieri, & Knauss) - FLORIDA - Volusia County. (p. 73).

NEW STATE RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - SOUTH CAROLINA - Oconee County; PENNSYLVANIA - Allegheny County. (p. 74).

INSECTS

A COCKROACH (Blatta lateralis) - TEXAS - El Paso County. (p. 74).

A EULOPHID WASP (Tetrastichus julis) - WISCONSIN - Walworth County. (p. 74).

A WEEVIL (Baris lepidii) - OHIO - District> County= collection data from unknown host: NE> Medina= 1 adult collected from alfalfa on farm, October 30, 1979, by W.E. Wille, determined by D.R. Whitehead. (W.E. Wille).

NEW COUNTY RECORDS

DISEASES

BROWN STEM ROT (Phialophora gregata) - WISCONSIN - Green, Lafayette, Milwaukee, Pierce, St. Croix, and Dunn. (p. 72).

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - ARKANSAS - Clay. (p. 73).

SOUTHERN RUST (Puccinia polysora) - KANSAS - See p. 71.

SOYBEAN CYST NEMATODE (Heterodera glycines) - MINNESOTA - Martin. (p. 73).

INSECTS

A EULOPHID WASP (Tetrastichus julis) - WISCONSIN - Milwaukee, Ozaukee, Sheybogan, Calumet, Fond du Lac, Kewaunee, and Manitowac. (p. 74).

CORRECTIONS

CPPR 5(2):63 - Top of page - line 5 "Northhampton..." should read "Northampton..."

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Desti- nation</u>
<u>Abgallaspis latastei</u> (Cockerell) a diaspid scale Det. S. Nakahara	adult	on orchid leaves from cargo	Miami	P. Larkins	CA
<u>Acaudaleyrodes citri</u> (Priesner a whitefly Det. S. Nakahara	adult	on leaves of sweet oranges from stores	Egypt	G. White	--
<u>Dacus cucurbitae</u> Coquillett melon fly Det. R. Kunishi	larval	in balsam pear from baggage	Honolulu	L. Smith	CA
<u>Epiphyas postvittana</u> (Walker) a tortricid moth Det. D.M. Weisman	larval	in strawberries from cargo	Los Angeles	L. Tengan	CA
<u>Rhynchites</u> sp. a weevil Det. D.M. Anderson	larval	with seeds of <u>Prunus</u> from cargo	Hoboken	P. Grosser	NY
<u>Trogoderma granarium</u> Everts Khapra beetle Det. F. Krim	pupal adult	with stores of ship	India	R. Scott	--
<u>Trypodendron domesticum</u> a scolytid beetle (Linnaeus) Det. D.M. Anderson	adult	in wood crates of automobile parts	West Germany	Charleston	SC
<u>Globodera rostochiensis</u> (Woll.) golden nematode Behrens Det. W.F. Friedman	cyst	with <u>Rhododendron</u> plants from baggage	Czecho- slovakia	A. Leong	NY

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(continued from page 67)

SMALL GRAINS

Highlights

WHEAT LEAF RUST caused an estimated 1.5% loss of wheat in Kansas. Prevalence of wheat leaf rust increased sharply in Wisconsin. STRIPE RUST appeared in Kansas. SPECKLED LEAF BOTCH severity was 15% on flag leaves of wheat in Nebraska. Loss due to WHEAT POWDERY MILDEW increased in Kansas. CEPHALOSPORIUM STRIPE increased on wheat in Kansas. TAN SPOT caused about 1.5% loss of wheat in Kansas. Severity on flag leaves was 10% in Nebraska. Several oat varieties lost resistance to OAT LOOSE SMUT in Wisconsin. CROWN AND FOOT ROTS and winter kill caused an estimated \$42 million loss of wheat in Nebraska. BACTERIAL STRIPE BLIGHT appeared on oats in Nebraska. WHEAT STREAK MOSAIC VIRUS caused the first significant damage to wheat in Michigan. BARLEY YELLOW DWARF VIRUS was extensive on winter grains in Washington. Large numbers of an APHID vector for this virus are possible in Indiana for spring 1980. ARMYWORM was heavy on wheat in many areas of Oklahoma, the number of wheat hectares treated for this pest increased almost 3 times in Illinois, treatment cost over \$1 million on small grains in Minnesota, and it was the most widespread general feeder on small grains in Michigan. Potential for a GRASSHOPPER problem in 1980 exists in Michigan.

DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) in KANSAS caused an estimated 1.5% loss or 6,042,000 bushels of wheat compared with 1.5% in 1978. Buildup of this disease was late and most severe in parts of the northwestern, north-central, and central areas where final flag leaf severity ratings were 10-25% in the fields surveyed. Flag leaf severity ratings for the rest of the State were in the 5-10% range. Infections on wheat in NEBRASKA were widespread but not severe. When surveyed at the one-half berry to soft dough stage in early June, prevalence ranged from trace to 30%, severities ranged from trace to 5%. As the growing season progressed there was some increase in the prevalence and severity observed in the southeastern district. At the time the wheat was turning from soft dough to middough, early July, the average prevalence/severity in the southeast was 40%/10%.

Prevalence of wheat leaf rust on winter wheat in WISCONSIN increased in 1979 to 50% and severity averaged 4%, a dramatic increase over the past two years. This rust was widely distributed on wheat in MICHIGAN.

STRIPE RUST (*Puccinia striiformis*), not usually found in KANSAS, was reported from individual fields in Douglas and Pratt Counties. Loss was negligible.

OAT CROWN RUST (*Puccinia coronata* var. *avenae*) in WISCONSIN was found in 53 of 70 oat fields surveyed near the end of July with an average prevalence of 48%, this is slightly higher than in 1978. Severity averaged 2% and little yield loss resulted.

SPECKLED LEAF BLOTCH (Septoria tritici) in KANSAS was distributed statewide and caused an estimated loss of 0.5% or 2,014,000 bushels of wheat compared with 1.0% in 1978. Infections in NEBRASKA were present on wheat throughout the State. It appeared in early June on older leaves of at least some plants in most fields, and by the time the grain was maturing there was a wide variation in the prevalence and severity of flag leaf symptoms. In general, late season infections were greatest in the southeastern district. State average prevalence/severity readings on flag leaves were 10%/15%. SEPTORIA COMPLEX (Septoria spp.) was widely distributed on wheat leaves in MICHIGAN.

Imperfect stage of SPECKLED BLOTCH (Leptosphaeria (Septoria) avenaria) in NEBRASKA was widespread in oat fields in the northeastern area. When this area was surveyed in early July, most fields had 5-20% prevalence and 5-10% severity.

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) in KANSAS caused an estimated loss of 1.0% or 4,028,000 bushels of wheat compared with 0.5% in 1978. This disease was distributed statewide with the most severe infections occurring in thick-seeded, heavily fertilized wheat in the eastern two-thirds of the State. Head infections were often observed in the eastern one-third of Kansas. Infections of this disease were widely distributed on wheat in MICHIGAN.

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) in KANSAS caused an estimated loss of 1.5% or 6,042,000 bushels of wheat compared with an estimated 0.9% in 1978. It was reported from all six central and eastern crop reporting districts and was most severe in the McPherson, Harvey, and Sedgwick County areas.

Losses from SMOOTH-SPORED BUNT (Tilletia foetida) in KANSAS were estimated to be trace on wheat. Reports of 50-100% loss occurred in some fields in several areas where growers did not apply seed treatment. Infections in MICHIGAN were first discovered in St. Clair County. Elevators also reported its occurrence from the different parts of the State. The reoccurrence of the disease was first reported in 1977.

TAN SPOT (Pyrenophora trichostoma) in KANSAS caused an estimated loss of 1.5% or 6,042,000 bushels of wheat compared with 1.0% in 1978. This foliar disease was most prevalent in the continuous wheat areas of central Kansas but could be found statewide. Infections in NEBRASKA occurred statewide, and by early June was common on the older leaves of wheat plants in most fields. By late June, when wheat was in soft dough stage, the upper leaves of plants in most fields showed at least some symptoms of infection. Infection levels at this time ranged from 0, some fields escaped infection completely, to 8.5 of the Saari and Prescott scale. The northwestern district of the State appeared to have the most even distribution, with an average of 60% prevalence and 10% severity for flag leaves of plants in infected fields.

TAKE-ALL (Gaeumannomyces graminis var. graminis) in KANSAS caused an estimated loss of 0.5% or 2,014,000 bushels of wheat compared with 2.0% in 1978. This disease was less obvious in the western one-half of Kansas in 1979 than in 1978 and few severely infected fields were observed in the eastern one-half of the State. Of the winter wheat fields surveyed in WISCONSIN, 50% had some degree of infection. The average prevalence was 5% and severity was 8%.

OAT LOOSE SMUT (Ustilago avenae) in WISCONSIN has maintained an infection level of 2% on oats for the last 3 years. Several varieties continue to be hard hit indicating a breakdown of resistance.

Losses from LOOSE SMUT (*Ustilago nuda*) in KANSAS were estimated at trace on wheat, the same as the 1978 estimate. This disease was observed in nearly all parts of the State. Surveys in barley in MINNESOTA were completed by July 20. Average prevalence from counts taken in five 3-m rows in 5 fields each by county: Marshall--2.2%, Norman--2.0%, Pennington--2.4%, Polk--2.0%, Red Lake--1.5%, Big Stone--0.94%, Douglas--0.69%, Grant--1.98%, Otter Tail--2.28%, Stevens--0.68%, Traverse--0.46%, and Wilkin--0.08%. Northwestern and west-central district averages (compared with 1978), respectively, 2.05% (1.9%) and 1.03% (0.43%). A total of 416 samples from the 1978 barley crop was processed from the northwestern and west-central districts. The average infection was 3.11% and 4.99%, respectively, compared with 3.38% and 2.85% in 1978.

WHEAT DOWNY MILDEW (*Sclerophthora macrospora*) in KANSAS was observed on wheat in the central and south-central areas.

A HELMINTHOSPORIUM ROOT ROT (*Cochliobolus (Bipolaris) sativus*) and FUSARIUM CROWN AND ROOT ROT COMPLEX (*Fusarium* spp.) in NEBRASKA along with physiological winter kill appeared to be a significant problem in April of 1979. Surveys conducted in the eastern and southeastern districts indicated stand reductions of 5-35% were common, with some fields having a potential loss of as much as 65%. Significant damage was also present in the western area, but exact figures were not available. It was estimated that by late April between 5% and 10% of the wheat hectares in the southeastern and eastern areas had been plowed under. By early June, most of the remaining fields showed significant recovery, with 60-90% of the damaged plants resuming growth. Losses due to winter kill, and to root and crown rots, include both those fields that were plowed up and replanted with some other crop (eastern area), and those fields that were simply not harvested (western area). The total area lost or not harvested was estimated to be 150,000 ha. The value of the wheat lost would be about \$42 million at current prices.

BACTERIAL STRIPE BLIGHT (*Pseudomonas striafaciens*) in NEBRASKA has been uncommon in most previous years. In 1979 it was identified on oat plants in a number of fields in the northwestern, northern, and northeastern districts. This disease was found in fewer than one-half of the fields surveyed at the one-half berry to milk stage in early July. In fields in which this disease was present, the usual prevalence of 10-30% and severity of 5-15% were found.

Two bacterial diseases, BLACK CHAFF (*Xanthomonas translucens* f.sp. *undulosa*) and BASAL GLUME ROT (*Pseudomonas atrofaciens*), in KANSAS were observed in widely scattered wheat fields in the eastern one-third of the State. Losses were negligible.

The incidence of WHEAT STREAK MOSAIC VIRUS was much less in 1979 than in 1978, and caused an estimated loss of 0.5% or 2,014,000 bushels compared with 3.5% in 1978. Some severely affected fields were prevalent in the Pratt and Kiowa County areas where volunteer wheat was present during the summer of 1978. Mild symptoms from late infections were evident in scattered fields over most of the western one-half of Kansas. This virus in MICHIGAN caused significant damage to wheat in one of the experimental plots. Although this disease is known to occur in the State, this was the first year the virus caused significant damage. The symptoms of this disease were also observed in Kent, Monroe, and Hillsdale Counties. This disease was not of consequence in these counties.

The incidence of BARLEY YELLOW DWARF VIRUS in WASHINGTON was again extensive in winter small grains (third consecutive year), particularly in the early fall plantings for the 1978-1979 crop. AN APHID (Rhopalosiphum padi) and GREENBUG (Schizaphis graminum) were the main species transmitting this virus. R. padi infested 100% of the 1979-seeded winter cereals but populations were light, ranged from fewer than 1 to 10 per 0.3 row m. Greenbugs were seldom found. Mild temperatures through October prolonged parasite and predator activity to help keep R. padi and ENGLISH GRAIN APHID (Macrosiphum avenae) levels low. Generally, aphids were very low on developing cereals in the spring and early summer. Numbers ranged up to 20 to 100 per tiller during flowering and early ripening in irrigated fields on the Royal Slope in Grant County.

The incidence of barley yellow dwarf virus on wheat in KANSAS was reduced from the levels observed in 1978, due to the absence of aphid vectors in the fall and early spring. Losses were estimated at trace levels compared with 0.8% in 1978. See an APHID (Rhopalosiphum padi) in INDIANA on page 83.

SOIL-BORNE WHEAT MOSAIC VIRUS in KANSAS caused an estimated loss of 1.6% or 6,444,800 bushels compared to 3.5% in 1978. This virus disease has recently been most prevalent in the continuous wheat areas of south-central and central Kansas and can be found in most counties in the eastern two-thirds of the State. This disease was also observed in irrigated wheat in the sand hills of the Arkansas River Valley in Gray and Ford Counties.

INSECTS

HESSIAN FLY (Mayetiola destructor) in OKLAHOMA was lighter in 1979 than in 1978. Samples collected before small grain harvest in the spring from 165 fields in 35 counties in the northwestern, north-central, northeastern, central, east-central, and south-central areas showed 36% of the fields infested. Infested stems for all fields averaged 3% and puparia per 100 stems averaged 9.5. The 1978 figures were 61% of the fields infested, an average of 8.6% infested stems for all fields, and an average of 17.9 puparia per 100 stems.

The mean percent of Hessian fly infestation in wheat in INDIANA averaged 1.1% for all wheat cultivars surveyed, down from the 8.3% of 1978. Cultivars having no source of resistance averaged 2.2%; those having W38 (H₃) averaged 2.1%; those having Ribeiro (H₅), only 0.8%. Mean number of puparia per 100 stems for all cultivars was 1.3.

ARMYWORM (Pseudaletia unipuncta) was reported active in headed wheat in Cotton and Tillman Counties, OKLAHOMA, by the first of May. During May, heavy infestations were very common in the southwestern, south-central, west-central, central, northwestern, and north-central areas. Counts of 20-30 per 0.3 row m were common and numbers ranged up to 90 per 0.09 sq m in a few areas. As many as 75% of the fields checked had economic infestations in some areas and many fields were treated. Despite the high numbers, head clipping was rarely reported.

Lighter armyworm infestations were also reported in several Panhandle, north-eastern, and east-central counties of Oklahoma during late May and early June. Infestations in the southern half of the State had declined by about May 25 but in northern areas, especially the Panhandle, larvae were present until at least June 15. Parasitism was commonly reported in the southwestern and west-central areas by about May 20. Damage was again reported in the margins of young wheat in the northeastern area of Kingfisher County about September 20-30 when larvae, probably third generation, migrated from nearby pastures.

During mid-May, damaging armyworm larval counts were reported in wheat fields from east-central across northeastern ARKANSAS. Infestations reached 8-10 per 0.09 sq m in some northeastern fields. By early June, larvae were causing concern to growers in the northwestern area where relatively heavy numbers were reported from wheat, alfalfa, and pastures.

Armyworm adults in MINNESOTA began appearing in light traps during the second week of June and peaked during the third and fourth weeks of June. The first report of larval infestations was in mid-July in Roseau County. By July 20, over 2,000 ha of small grains were treated in Polk and western Red Lake Counties. Larvae ranged 1-2 per 0.09 sq m in small localized fields in other districts. A total of 69,201.5 ha, 3.6% of the total harvested hectares, of small grains was treated for over \$1 million.

Localized, intense armyworm infestations in WISCONSIN occurred in oats, barley, and corn in the northwestern, north-central, northeastern, east-central, and southeastern areas. More hectares of grassy alfalfa than usual were infested in the northern one-third of the State. Several thousand hectares were treated before the infestations ended in mid-August.

Armyworm adults in ILLINOIS were first collected in light traps during the second week in April. Numbers increased steadily in traps into early May. First larvae (0.953-3 cm long) were observed in grassy areas in the southern one-half of the State about the first week in May. The first larva found in wheat was in Washington County during the second week in May. Armyworms were observed in large numbers in occasional wheat fields in the southwestern area during the first week in June. The heaviest infestations occurred in luxuriant, thick stands of wheat. Several fields had economic levels of 6 or more larvae per 0.3 row m and required treatments by mid-June. Leaf feeding was widespread and head cutting was severe in several instances. Populations declined in late June. An estimated 5,600 ha of wheat were sprayed in 1979, 289% more than the 1,894 ha treated in 1978.

The first armyworm larvae of the season in KENTUCKY were found in Christian County on April 24. However, larval populations remained low until mid-May when economic levels of more than 16 larvae per 0.4 sq m were observed in some areas of the Purchase region and in the southwestern area of the mid-western region. Some of the heaviest damage occurred in the Christian County area where about 40% of the fields scouted in the pest management program reached the economic threshold and several fields were treated. However, when viewed on a statewide basis, populations caused only minor problems to small grains and only about 1% of the wheat hectares is estimated to have been treated.

Overall, armyworm in MICHIGAN was the most widespread of the general feeding insects. Damage was noted on oats, barley, and to a lesser extent wheat and rye. The Upper Peninsula and the northern and southwestern counties of the Lower Peninsula were the areas most affected. Several counties in the Upper Peninsula were especially heavily infested and at one time all Upper Peninsula counties reported damage to crops. Control, as usual, was variable. The worst problem, and this applies to the other insects also, was that the armyworm was not detected before damage was heavy. Very low levels of this pest were found on small grains in SOUTH CAROLINA. No controls were needed. Moderate to high populations in Delaware were observed on small grains in May in spite of light adult catches in blacklight traps prior to the outbreak.

VARIEGATED CUTWORM (Peridroma saucia) in OKLAHOMA was common in a number of wheat fields in the southwestern, south-central, west-central, central, and north-central areas during May. Counts of 5-12 per 0.09 sq m were found in lodged areas of some fields. Most fed on weeds but damage to wheat was reported in a few cases.

RICE WATER WEEVIL (Lissorhoptrus oryzophilus) litter samples taken in January from east-central ARKANSAS yielded unusually low numbers of adults, indicating the lowest overwintering population in at least 3 years. Emergence of adults during late May was erratic, perhaps related to the relatively cool and wet weather conditions. Generally, damage to rice was relatively low this season, although in certain areas, especially in the southeastern area heavy damage to seedling rice fields was reported.

CABBAGE SEEDPOD WEEVIL (Ceutorhynchus assimilis) adults in CALIFORNIA were active in oat fields in Central Mountains and Foothills areas in April.

Infestations of SCARABS (Cyclocephala spp. and Phyllophaga spp.) in OKLAHOMA ranged 3-20 per 0.09 sq m in wheat in scattered areas in the northwestern, north-central, and central counties from late April to mid-June. In late August and September surveys of fields intended for wheat showed mostly light to moderate infestations but counts of 20-30 per 0.09 sq m were found in some sandy fields in northern and western Kingfisher County and counts of 5-15 per 0.09 sq m were present in isolated fields in a few other areas.

A PHALACRID BEETLE (Acylomus n.sp.), a new undescribed insect species, associated with ERGOT (Claviceps purpurea) sclerotia in MICHIGAN was discovered on wheat for the first time in the United States. See CPPR 4(43):344.

GREENBUG (Schizaphis graminum) was very light or absent in wheat in all areas of OKLAHOMA through April. A slight increase occurred after wheat had headed in May but no damage occurred. Fall activity was first found in Jackson and Greer Counties the last week of September. Numbers were light during October but increased in November. Much of the wheat in the State was planted, or emerged, late due to dry weather. Seedling wheat was still common at the end of November. Damage to this young wheat was reported from a number of counties in the northwestern, north-central, west-central, and central areas. Many fields had to be treated in late November, especially in the north-central area. For greenbug, ENGLISH GRAIN APHID (Macrosiphum avenae), and an APHID (Rhopalosiphum padi) in WASHINGTON, see BARLEY YELLOW DWARF VIRUS, page 81, this issue.

Adults and nymphs of an APHID (Rhopalosiphum padi) in CALIFORNIA were active in oat and barley fields in April in the San Joaquin Valley district; and also active on seeds and stems of wheat in April in the Low Desert district. This species in INDIANA is normally present in small numbers on small grains in the spring but was virtually absent in 1979. At the end of June, R. padi began to appear in the whorls of corn that was about a meter tall in the northeastern district. Infestation next appeared farther west and south, and by September, corn in the northern half of the State had large numbers. When the corn was no longer suitable, R. padi moved in September and October to seedling wheat. Together with CORN LEAF APHID (Rhopalosiphum maidis), such numbers occurred on this crop in the northeastern and north-central districts that treatment was contemplated. There is a potential for large numbers next spring in this area for this vector of BARLEY YELLOW DWARF VIRUS.

GRASSHOPPERS in MICHIGAN were second to ARMYWORM (*Pseudaletia unipuncta*) in the area infested for wheat, oats, and barley, and to a lesser extent rye. The areas most affected were the northern Lower Peninsula and the west-central and east-central counties. Damage was especially heavy in several northern Lower Peninsula counties where small fields of crops are interspersed among large areas of the idle lands that are breeding areas for the grasshoppers. Controls were good except for continuing reinfestation in the northern counties. The continued warm weather in late summer of 1978 and the slow, dry spring of 1979 contributed to the problem. The warm early fall of this year could mean a grasshopper problem in 1980.

GRASS SAWFLY (*Pachynematus extensicornis*) was found clipping wheat heads in most fields checked in southern Kent and western Sussex Counties, DELAWARE. Economic population levels occurred in about 2% of the wheat in this area.

TURF, PASTURES, RANGELAND

INSECTS

Widespread ARMYWORM (*Pseudaletia unipuncta*) infestations of 5-30 larvae per 0.09 sq m were present in pastures in Choctaw County, OKLAHOMA, by mid-May. During late May and early June heavy infestations were found in pastures, especially bermudagrass and fescue, in several counties in the northeastern, west-central, central, south-central, and southeastern areas. Larvae also migrated into and damaged lawns in a number of areas. Heavy infestations, probably third generation, also caused considerable damage to pasture grasses in some areas of Kingfisher County in late September.

In Minnesota economic armyworm infestations of over 5 larvae per 0.09 sq m were reported in 324 ha of bluegrass grown for seed in Roseau County.

Armyworm damaged grasses in MICHIGAN. The Upper Peninsula and the northern and southwestern counties of the Lower Peninsula were the areas most affected. Several counties in the Upper Peninsula were especially heavily infested and at one time all the Upper Peninsula counties reported damage to crops. Control, as usual, was variable and there were the continuing problems of obtaining insecticides and aerial contractors. The worst problem, and this applies to the other insects also, was that armyworm was not detected before damage was heavy.

Very low FALL ARMYWORM (*Spodoptera frugiperda*) levels were reported on pasture grasses during 1979 in SOUTH CAROLINA. However, a few larvae were collected in Newberry County during midwinter, indicating that a small percentage of all armyworms may be overwintering in the State. Widely scattered infestations in NORTH CAROLINA developed July 27 to August 2 in lawns, pastures, and hay fields. Infestations were reported most frequently from the southern Piedmont and southern coastal counties with less than 1% of the hectares reaching threshold compared to 5% in 1978 and 20% in 1977.

In OKLAHOMA, heavy CLAYBACKED CUTWORM (*Agrotis gladiaria*), a NOCTUID MOTH (*Agrotis venerabilis*), BRONZED CUTWORM (*Nepheodes minfians*), and VARIEGATED CUTWORM (*Peridroma saucia*) infestations were present in pastures and lawns in scattered areas in the north-central, east-central, south-central, and southeastern counties from early April to mid-May.

Heavy populations of GREEN JUNE BUG (*Cotinis nitida*) in SOUTH CAROLINA were reported in several Piedmont counties during early fall. Several pastures received controls.

Adults of SOUTHERN MASKED CHAFER (Cyclocephala immaculata) and NORTHERN MASKED CHAFER (Cyclocephala borealis) were abundant on turf pastures and rangeland throughout KENTUCKY during June and early July. However, damage during late August and September was minor due to the heavy rains that occurred throughout that period.

SOUTHERN CHINCH BUG (Blissus insularis) was generally a serious problem on St. Augustinegrass in the southern half of FLORIDA, causing loss of grass unless sprayed. One of the worst years for damage occurred in 1979 in Palm Beach and Broward Counties; the damage usually was associated with the organophosphate-resistant strain of this insect. There were also some control problems in Dade County.

GRASSHOPPER nymphs, probably Melanoplus spp., in ARKANSAS were reported at up to 20-30 per 0.8 sq m in 6,070.3-8,093.7 ha of fescue, orchardgrass, and ryegrass pastures in Independence County during June. These infestations were about 3 times greater than the treatment level.

Grasshoppers in MICHIGAN infested grasses and hays. The areas most affected were the northern Lower Peninsula and the west-central and east-central counties. Damage was especially heavy in several northern Lower Peninsula counties where small fields of crops are interspersed among large areas of the idle lands that are breeding areas for grasshoppers. Controls were good except for continuing reinfestation in the northern counties. The continued warm weather in late summer of 1978 and the slow, dry spring of 1979 contributed to the problem. The warm early fall of this year could mean grasshoppers may be a problem in 1980.

Overall, populations of MOLE CRICKETS (Scapteriscus spp.) in FLORIDA were about the same as in 1978 except that economic levels occurred farther south. In the southern and southwestern areas there was more of a problem than in previous years, causing loss of grass on fairways, tees, and greens of golf courses. The main home lawn grass damaged was bahiagrass, but thinning of St. Augustinegrass occurred also. Bahiagrass used for parks, school grounds, and cemeteries required controls. Commercial turf, including bermudagrass and bahiagrass pastures were damaged. Control was poor on pastures in the Hastings area, St. Johns County.

BANKS GRASS MITE (Oligonychus pratensis) in FLORIDA, which normally infests small grains, apparently has become a problem on St. Augustinegrass and zoysiagrass. At Orlando, Orange County, it caused 75% of the turf to die in a yard, and at Ft. Lauderdale, Broward County, 50% of 20 yards were infested and showed some turf damage. The damage usually is associated with stress areas of a yard. This is a potential new pest problem in Florida.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

POSTAGE
U.S. MAIL

NATIONAL AGRICULTURAL LIBRARY



1023169292

LIBRARY



as8
823
253

perative PLANT PEST REPORT

3/20

U.S. February 22, 1980
DEPARTMENT
OF AGRICULTURE

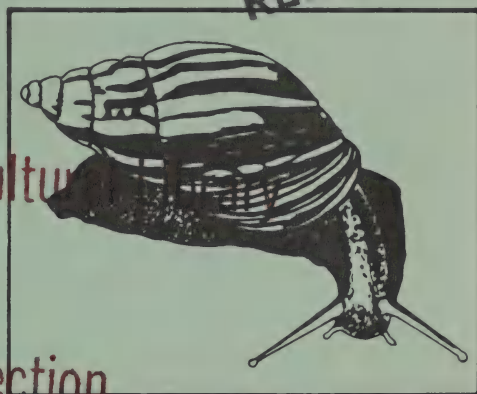
Vol. 5
No. 4

Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY

MAR 13 1980

RECEIVED



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

PEA APHID 500+ per sweep of alfalfa in central Arizona. (p. 89).

Detection

New State records include a WEEVIL in Oklahoma (p. 90), PINWOOD NEMATODE in Kentucky and Iowa, and LARGER ELM LEAF BEETLE in Ohio (p. 91).

New county and island records on pages 93-94.

New hosts for PINWOOD NEMATODE in Iowa (p. 91) and SAN JOSE SCALE in Florida (p. 92).

First Occurrence of the Season

EASTERN TENT CATERPILLAR hatch in Florida.

Special Reports

Summary of Pest Conditions in the United States - 1979

Forage Legumes (p. 96-101).

Soybeans (p. 101-105).

Peanuts (p. 105).

Reports in this issue are for the week ending February 15 unless otherwise indicated.

CONTENTS

Small Grains	Other Tropical & Subtropical Fruits
Insects.....89	Insects.....90
Forage Legumes	Ornamentals
Insects.....89	Insects.....90
Miscellaneous Field Crops	Forest and Shade Trees
Insects.....90	Diseases.....91
	Insects.....91
Deciduous Fruits and Nuts	Man and Animals
Insects.....90	Insects.....92
Hawaii Pest Report.....93
Light Trap Collections.....94
Detection.....93
Pest Interceptions of Quarantine Significance at Ports of Entry.....95
Summary of Pest Conditions in the United States - 1979	
Forage Legumes	
Diseases.....96
Insects.....96
Soybeans	
Diseases.....101
Insects.....102
Peanuts	
Insects.....105

SMALL GRAINS

INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= status on wheat week ending February 8: SW> Jackson, Greer, and Kiowa= occasional larva; currently: SW> Jackson and Greer= occasional larva and SW> Caddo= also reported from Apache area. (D.C. Arnold).

GREENBUG (Schizaphis graminum) - TEXAS - Counts per 0.3 row m of small grains February 4 (E.P. Boring, III):

<u>District> County</u>	<u>Counts</u>
Cross Timbers> Archer	light to moderate
Southern Low Plains> Baylor	light to heavy
Northern Low Plains> Foard	9-50
Northern Low Plains> Foard	up to 77
Northern Low Plains> Wichita	1-10
Northern Low Plains> Wilbarger	2-32
Northern Low Plains> Wilbarger	up to 68

OKLAHOMA - District> County= greenbug status on wheat week ending February 8: SW> Jackson, Greer, and Kiowa= 0-45 per 0.3 row m in 12 fields, 50% less than last 2 periods; and NC> Grant= light in 2 fields; current counts per 0.3 row m of wheat: SW> Greer and Jackson= 0-5 in few fields. (D.C. Arnold).

AN APHID (Rhopalosiphum padi) - TEXAS - District> County= counts per 0.3 row m of small grains February 4: Northern Low Plains> Foard= 0-9 and Wilbarger= 0-7. (E.P. Boring, III). OKLAHOMA - District> County= counts week ending February 8: C> Seminole= heavy in 16-ha oat field, SW> Jackson, Greer, and Kiowa= averaged less than 5 per 0.3 row m in 12 wheat fields, and NC> Grant= averaged less than 5 per 0.3 row m in 2 wheat fields. (D.C. Arnold).

WINTER GRAIN MITE (Pentthaleus major) - TEXAS - District> County= counts per 0.3 row m of small grains February 4: Northern Low Plains> Foard= 1-34 and Wilbarger= 1-60. (E.P. Boring, III). OKLAHOMA - District> County= counts per 0.3 row m of wheat week ending February 8: SW> Jackson, Greer, and Kiowa= averaged less than 5 in 12 fields. (D.C. Arnold).

FORAGE LEGUMES

INSECTS

ALFALFA CATERPILLAR (Colias eurytheme) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: SW> Yuma= very heavy. (F. Brooks et al.).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Pinal= larvae 50-200 and adults 90-100, and SW> Yuma= adults 2-220. (F. Brooks et al.).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Pinal= 51,800 and SW> Yuma= 800-2,300. (F. Brooks et al.).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Pinal= very heavy and SW> Yuma= nymphs and adults 120-250. (F. Brooks et al.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Pinal= 60-150 and SW> Yuma= 600-2,200. (F. Brooks et al.).

MISCELLANEOUS FIELD CROPS

INSECTS

A PYRALID MOTH (Fumibotys fumalis) - WASHINGTON - New county record. District> County= collection data from Mentha X piperita (peppermint): EC> Grant= at Royal City, October 8, 1979, collected and determined by K. Pike. (R.F. Harwood).

DECIDUOUS FRUITS AND NUTS

INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - FLORIDA - First report of egg hatch in Gainesville area this year. (F.W. Mead). District> County= larval status on Malus sylvestris (apple) tree February 6: C> Alachua= began emerging, moderately infested tree on fruit farm at Alachua. (A.J. Snapp).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - District> County= status on pear week ending February 8: Sierra Mountains> El Dorado= mass occurrence in about 800-ha area. Overwintering adults heavy, eggs noted February 5 from Gold Hill, in Placerville area. (C.S. Papp).

WINTER MOTH (Operophtera brumata) - OREGON - County= eggs per sq cm of unmanaged filbert orchard during January: Washington= 0.05 from top branches of mature trees near Tigard. All eggs under edges of lichens. (D. Imberling, R. Penrose).

A WEEVIL (Conotrachelus pecanae) - OKLAHOMA - New State record. District> County= collection data from Carya illinoensis (pecan) trees: C> Lincoln= specimens in cone traps under trees in orchard at Sparks, March 29 to April 26, 1979, collected by H. Davis, determined by D.R. Whitehead. (D.C. Arnold).

OTHER TROP. & SUBTROP. FRUITS

INSECTS

YELLOW SCALE (Aonidiella citrina) - FLORIDA - New county record. District> County= collection data from Carissa macrocarpa (Natal-plum) plant: S> Lee= adults on leaves at State park at Estero, December 14, 1979, collected by K. Delate, determined by A.B. Hamon. Plant in park 1+ years. (K. Delate).

ORNAMENTALS

INSECTS

CAMPHOR SCALE (Pseudaonidia duplex) - FLORIDA - New county record and new host record for State. District> County= collection data from Baccharis angustifolia

(false willow): C> Hernando= camphor scale adults moderately infested stems and leaves in nursery at Weeki Wachee, January 8, 1980, collected by R. Phillips and A. Bentley, determined by A.B. Hamon. Plants native in wild. (R. Phillips).

A DIASPIDID SCALE (Aspidiotus spinosus) - FLORIDA - New host record for State. District> County= collection data from Hedera helix (English ivy) plants: C> Pinellas= adults heavily infested stems and leaves of all 600 plants in nursery at Seminole, January 11, 1980. (R. Muekeley).

A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - New county record. District> County= collection data from Myrica cerifera (southern waxmyrtle) plant: S> De Soto= adults on leaves and stems at park near Arcadia, December 28, 1979, collected by Z. Smith, determined by A.B. Hamon. Plants native, in park long time. (Z. Smith).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KENTUCKY - New State and county records. District> County= collection data from Pinus spp. (pine): C> Hardin= all stages heavy on P. sylvestris (Scotch pine) on military reservation at Fort Knox, August 13, 1979, collected by J.H. Snyder; Purchase> Fulton= larvae sparse on pine tree in urban area at Hickman, during September, collected by R.A. Scheibner, reared on Nigrospora sp. (a fungus) to obtain adults for identification; Midwestern> Henderson= all stages heavy on P. echinata (shortleaf pine) in urban area at Henderson, September 17, collected by J.R. Hartman; Daviess= all stages heavy on Scotch pine in urban area at Owensboro, November 16, December 5, and December 14, collected by T. Curtsinger; and Hopkins= mostly larvae heavy on Scotch pine in urban area near Madisonville, January 30, 1980, collected by R. Dorset. All determined by R.A. Chapman and W. Friedman. (P.E. Sloderbeck).

IOWA - New State record and new host record for pinewood nematode for State. District> County= collection data from Pinus resinosa (red pine): SE> Van Buren= in State forest at Farmington, December 4, 1979, collected by W. Fuhlbrugge, determined by D.C. Norton and W. Friedman. (D. Williams).

INSECTS

LARGER ELM LEAF BEETLE (Monocesta coryli) - OHIO - New State record. District> County= collection data: SC> Scioto= specimen collected on path near edge of hardwood forest in State park near Portsmouth, August 4, 1979, by J. Sargent, determined by J.A. Wilcox. (G.P. Walker).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - FLORIDA - District> County= status from Prunus angustifolia (chickasaw plum) February 9: C> Alachua= overwintering egg masses hatching, larvae infested blooming twigs of tree at residence at Gainesville. (L.A. Hetrick). Egg masses fewer in Gainesville area than in previous 2 winters which had outbreak populations. (L.A. Hetrick, F.W. Mead).

SAN JOSE SCALE (Quadraspidotus perniciosus) - FLORIDA - New county record and new host record for State. District> County= collection data from Salix nigra (black willow) plants: S> Sarasota= adults scattered on stems at State park near Arcadia, December 26, 1979, collected by Z. Smith, determined by A.B. Hamon. Plants growing in wild. (Z. Smith).

A DIASPIDID SCALE (Abgrallaspis comstocki) - FLORIDA - New county record. District> County= collection data from Persea palustris (swampbay) plant: S> Indian River= adults moderately infested leaves near Vero Beach, November 19, 1979, collected by S.P. Beidler, determined by A.B. Hamon. Plants in wild. (S.P. Beidler).

A DIASPIDID SCALE (Abgrallaspis howardi) - FLORIDA - New county record and new host record for State. District> County= collection data from Salix nigra (black willow) plants: S> Sarasota= adults scattered on stems at State park near Arcadia, December 26, 1979, collected by Z. Smith, determined by A.B. Hamon. Plants growing in wild. (Z. Smith).

A DIASPIDID SCALE (Neopinnaspis harperi) - FLORIDA - New county record. District> County= collection data from Quercus laurifolia (laurel oak): S> Hardee= adults scattered on stems along railroad tracks near Limestone, December 28, 1979, collected by Z. Smith, determined by A.B. Hamon. Plants growing in wild. (Z. Smith).

A TREEHOPPER (Platycotis vittata) - FLORIDA - New county record. District> County= collection data from Quercus sp. (oak): S> Palm Beach= adults on stems of tree at residence at Belle Glade, January 25, 1980, collected by N. Miles and D. Clinton, determined by F.W. Mead. Tree about 20 years old. (N. Miles).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - FLORIDA - District> County= adults per head February 13: C> Alachua= averaged 6 in small beef herd at Micanopy (D. Simon), lowest count this year on this herd. (F.W. Mead).

A MOSQUITO (Culex restuans) - FLORIDA - Most commonly encountered species of survey in woodland pools. District> County= status February 14: C> Alachua= larvae and pupae collected in Gainesville area. (F.W. Mead).

A MOSQUITO (Aedes infirmatus) - FLORIDA - District> County= larval status February 9: C> Alachua= few collected in woodland in Gainesville area. (F.W. Mead).

GULF COAST TICK (Amblyomma maculatum) - OKLAHOMA - New county record. District> County= collection data from cattle: SE> Le Flore= 2 males and 2 females collected 3 km east of Monroe, August 16, 1979, by D. Barnard, determined by H.G. Koch. (D.C. Arnold).

BROWN DOG TICK (Rhipicephalus sanguineus) - OKLAHOMA - New county record. District> County= collection data from coyote: SE> Le Flore= 2 males collected on ranch 10 km southeast of Poteau, June 25, 1979, collected and determined by H.G. Koch. (D.C. Arnold).

HAWAII PEST REPORT

General Vegetables - TOMATO PINWORM (*Keiferia lycopersicella*) - Island= status on tomatoes: Maui= heavy in abandoned fields in upper Omapio, following heavy storm damage in January. (N. Miyahira).

Turf, Pastures, Rangeland - A THRIPS (*Aeolothrips bicolor*) - New island record. Island= collection data from Medicago sativa (alfalfa): Molokai= collected on farm at Hoolehua, October 18, 1979, by L.M. Nakahara, determined by K. Sakimura. Primarily predator of scales and mites. (L.M. Nakahara).

Miscellaneous - GIANT AFRICAN SNAIL (*Achatina fulica*) - Island= status: Hawaii= small infestation, 38 snails (13-51 mm long) recovered from single property at Puako near Kawaihae in January. Controls applied. Infestation previously confined to central Kona area. (E.R. Yoshioka, R.S. Kami).

DETECTION

NEW STATE RECORDS

DISEASES

PINEWOOD NEMATODE (*Bursaphelenchus lignicolus*) - IOWA - Van Buren County. KENTUCKY - Hardin County. (p. 91).

INSECTS

LARGER ELM LEAF BEETLE (*Monocesta coryli*) - OHIO - Scioto County. (p. 91).

A WEEVIL (*Conotrachelus pecanae*) - OKLAHOMA - Lincoln County. (p. 90).

NEW COUNTY AND ISLAND RECORDS

DISEASES

A DAGGER NEMATODE (*Xiphinema bakeri*) - CALIFORNIA - District County= collection data (host unknown): Northern Coast Mendocino= soil sample taken at private property on Old Coast Highway, August 16, 1979. Collected by M. Rabel and A. Del Bondio, determined by D. Raski. (C.S. Papp).

PINEWOOD NEMATODE (*Bursaphelenchus lignicolus*) - KENTUCKY - Fulton, Henderson, Daviess, and Hopkins. (p. 91).

INSECTS

BROWN DOG TICK (*Rhipicephalus sanguineus*) - OKLAHOMA - Le Flore. (p. 92).

CAMPHOR SCALE (*Pseudaonidia duplex*) - FLORIDA - Hernando. (p. 90-91).

A DIASPIDID SCALE (*Abgrallaspis comstocki*) - FLORIDA - Indian River. (p. 92).

A DIASPIDID SCALE (*Abgrallaspis howardi*) - FLORIDA - Sarasota. (p. 92).

A DIASPIDID SCALE (*Neopinnaspis harperi*) - FLORIDA - Hardee. (p. 92).

A DIASPIDID SCALE (*Velataspis dentata*) - FLORIDA - De Soto. (p. 91).

GULF COAST TICK (Amblyomma maculatum) - OKLAHOMA - Le Flore. (p. 92).

A PYRALID MOTH (Fumibotys fumalis) - WASHINGTON - Grant. (p. 90).

A THRIPS (Aeolothrips bicolor) - HAWAII - Molokai. (p. 93).

A TREEHOPPER (Platycotis vittata) - FLORIDA - Palm Beach. (p. 92).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - FLORIDA - Sarasota. (p. 92).

YELLOW SCALE (Aonidiella citrina) - FLORIDA - Lee. (p. 90).

WEEDS

JAPANESE HOPS (Humulus japonicus) - MISSOURI - District> County= collection data from university corn research plot: C> Boone= this weed collected at Rollins bottom at Columbia, September 17, 1979, by M. Hulett and A. Foudin, determined by L. Anderson. (A. Foudin).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 2/4-10, BL - ARMYWORM (Pseudaletia unipuncta) 2, BLACK CUTWORM (Agrotis ipsilon) 1, and VARIEGATED CUTWORM (Peridroma saucia) 1. CALIFORNIA - Bellota, 2/10, BL - Variegated cutworm 1. FLORIDA - Gainesville, 2/7-13, BL - Black cutworm 1, and GRANULATE CUTWORM (Feltia subterranea) 1. TEXAS - College Station, 2/7-12, BL - Armyworm 0, black cutworm 0, CABBAGE LOOPER (Trichoplusia ni) 0, CORN EARWORM (Heliothis zea) 0, FALL ARMYWORM (Spodoptera frugiperda) 0, SALT MARSH CATERPILLAR (Estigmene acrea) 0, TOBACCO BUDWORM (Heliothis virescens) 0, TOMATO HORNWORM (Manduca quinquemaculata) 0, and YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 0.

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Pucciniastrum areolatum</u> (Fr.) Oth. a rust Det. F. Matthews	acical on Picea seeds from cargo	West Germany	Los Angeles	V. McDonald	MT
<u>Acanthocinus</u> sp. a cerambycid beetle Det. D.M. Anderson	larval in dunnage	Korea	Wilmington	A. Wildman	NC
<u>Aleurotuberculatus jasmini</u> Takahashi a soft scale Det. S. Nakahara	adult on leaves of <u>Gardenia plants</u> from baggage	Philippines	Seattle	M. Harris	WA
<u>Calyciflorus</u> sp. a weevil Det. D.R. Whitehead	larval adult in wood pallets of lumber	Brazil	New Orleans	W. Stafford	LA
<u>Kaloterms flavicollis</u> (Fabricius) a termite Det. C.M. Wheeler	pupal in wood crates	Italy	New Orleans	T. Heineke	MN
<u>Maruca testulalis</u> (Geyer) bean pod borer Det. R. Kunishi	larval in <u>Sesbania</u> cut flowers from baggage	Philippines	Honolulu	T. Arkle	HI
<u>Moliorchus minor</u> (Linnaeus) a cerambycid beetle Det. T.J. Spilman	larval adult in wooden side boards	Sweden	Houston	B. Gale	TX
<u>Tetramesa</u> sp. a eurytomid wasp Det. E.E. Grissell	larval in stems of <u>Ampelodesmos</u> grass from cargo	Italy	New Orleans	P. Courneya	AL

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(continued from page 85)

FORAGE LEGUMES

Highlights

ALFALFA DOWNY MILDEW caused significant damage to alfalfa in southern California. FUSARIUM CROWN AND ROOT COMPLEX was severe on alfalfa in 2 areas of Kansas. ALFALFA WEEVIL rate of feeding was high in all alfalfa areas of Wisconsin for the first time. Larvae in Indiana and Kentucky were infected by a fungus too late to prevent loss. VARIEGATED CUTWORM held back alfalfa regrowth in many areas of Oklahoma. ARMYWORM was the most widespread of the general feeders in Michigan. BLUE ALFALFA APHID was active on alfalfa in an area of California. This aphid continued to spread in Oklahoma. Specimens were found for the first fall record of this species in the State. POTATO LEAFHOPPER damage was averted by timely rains in Illinois. It was the worst pest in Indiana. SPOTTED ALFALFA APHID caused economic damage in Washington and overwintered there for the first time.

DISEASES

Losses from foliar and stem diseases on alfalfa in KANSAS are estimated at 16%, the same as the 1978 estimate. Unlike in 1978, the cool season diseases such as SPRING BLACK STEM and LEAF SPOT (Phoma medicaginis), LEPTO LEAF SPOT (Leptosphaerulina briosiana), and YELLOW LEAF BLOTCH (Leptotrochila medicaginis) caused the most damage in 1979. STEMPHYLIUM LEAF BLIGHT (Stemphylium botryosum) was generally prevalent only on the second cutting. The warm season diseases such as SUMMER BLACK STEM and LEAF SPOT (Cercospora medicaginis), SOUTHERN ANTHRACNOSE (Colletotrichum trifolii), COMMON LEAF SPOT (Pseudopeziza medicaginis), and ALFALFA BACTERIAL LEAF SPOT (Xanthomonas alfalfae) also affected yields during the summer months. ALFALFA RUST (Uromyces striatus) was widespread across the State in the fall and was most severe in the south-central area where it was defoliating seedling alfalfa.

There was a serious outbreak of ALFALFA DOWNY MILDEW (Peronospora trifoliorum) on alfalfa cultivars Moapa 69 and U.C. Cargo in the Low Desert District of CALIFORNIA in February. It has been present for some time but had not caused significant damage until recently. Infections on alfalfa in KANSAS were more prevalent in 1979 than in 1978.

The FUSARIUM CROWN AND ROOT ROT COMPLEX (Fusarium spp.) in Kansas was generally most severe on alfalfa in the southeastern and east-central areas. Heavy rains in mid-June enhanced root and crown rots in those areas. Both established stands and newly seeded fields were destroyed in the wettest areas. Statewide losses from root and crown rots were estimated at 1.5%. This figure would be higher if the cost of stand re-establishment were included.

INSECTS

ALFALFA WEEVIL (Hypera postica) larvae began hatching in the south-central, southwestern, and west-central areas of OKLAHOMA the second week of March. Heavy infestations were present in alfalfa in some southern counties by the end of March. Heavy infestations were present in the central and west-central counties by the second week of April and in the east-central and northern counties by the third week of April. Heavy infestations were not reported in

the Panhandle until the middle of May. Re-infestation of treated fields of alfalfa weevil was common in the southwestern and west-central areas in late April. Pupation was beginning in the southern one-half of the State by the middle of April and numbers had declined substantially by the end of April. Numbers were decreasing by the middle of May in the northern areas. Numbers were light in all areas after the first of June but a few larvae could be found in many fields through the middle of July.

The first adult appearance of alfalfa weevil in alfalfa in MINNESOTA was on May 25, in Wright County. Larvae were found in the central, south-central, and southeast districts by June 8. Populations increased to as high as 20 larvae per sweep in Fillmore, Houston, and Olmsted Counties by June 15. Steele and Waseca Counties had as many as 5 larvae per sweep. The heavy snow cover followed by the slow 1979 growing season probably contributed to the survival of adults. This led to increases in weevil populations particularly in the southeastern area.

Chemical treatments for alfalfa weevil in Minnesota were not required because the first cutting of alfalfa was completed by the third week in June. In 1980, the southeastern counties need to watch for economic levels, especially if the first cutting is delayed beyond the 1 per 10-bloom stage. The addition of Anoka County (CPR 4(36):709) in 1979 brings the total confirmed counties to 52. Biological control measures were intensified in 1979. Bathyplectes curculionis (an ichneumonid wasp), commonly found throughout the range for alfalfa weevil, is proving effective. Microctonus aethiopoides (a braconid wasp), which infests adults, was successfully introduced in Houston County in 1977. A second release of M. aethiopoides was made in Dakota County in the fall of 1979.

The 1979 growing season in WISCONSIN was the first season in which high rates of alfalfa weevil feeding injury were observed in all alfalfa-growing areas. Early harvest of the alfalfa and chemical treatment of the first crop or stubble was common throughout the State. High adult populations were observed in alfalfa in the south-central, southwestern, and west-central areas by May 11 and eggs were found in Grant, Green, Iowa, Sauk, and La Crosse Counties. Hatch of the spring-laid eggs was noted in the lighter soils along the Wisconsin River during the week ending May 18.

Tip injury caused by alfalfa weevil in Wisconsin was as high as 60% and was observed in southern Green County by May 25. The number of egg clusters in the alfalfa stems indicated that the egg hatch was far from complete in the southern one-third of the State. Outbreak conditions had peaked in the southern one-half of the State by June 15, but high larval populations were observed in many regrowth fields. Low numbers of pupae were found in Dane, Rock, and Green Counties at this time which indicated the decline of the 1979 population in the southern one-third of the State. Pupae were found in St. Croix and Polk Counties the week of June 29, and larval damage to alfalfa regrowth was reported from the northern counties as late as July 13.

Estimates of hectares in INDIANA that would have profited by treatment for alfalfa weevil are reported by district: Southern--all 11,000 ha, central--about 5,500 ha south of Indianapolis, and northern--about 16,000 ha (or about one-half of the alfalfa north of U.S. Highway 30) for a total of about 34,000 ha. No reliable estimates of the number of hectares actually treated were available. Losses on untreated hectares averaged closer to loss sufficient to repay treatment costs than to total leaf loss.

Fall egg laying by alfalfa weevil in Indiana averaged 57 eggs per 15 sq cm in a Harrison County alfalfa field by December 2, 1978, near the end of the egg laying cycle. About the same number was present March 13, 1979, when the first adults were observed, this was about 2 weeks earlier than in 1978. By March 21, eggs averaged 100 per 15 sq cm of alfalfa [3 cm tall] and larvae were present on about 4% of stems. By April 9, 43% of the alfalfa [averaged 10 cm tall] in the south-central area was infested with 1.9 larvae per plant. At that time, treatment was recommended for about two-thirds of the fields surveyed. Although growth was lush and tended to mask the damage, treatment was profitable for most of the alfalfa south of U.S. Highway 50, for about half of the alfalfa between U.S. Highway 50 and Indianapolis, and about half of the alfalfa north of U.S. Highway 50. Entomophthora phytonomi (an insect fungus) infected larvae in some of the southern districts too late to prevent losses.

Early spring alfalfa weevil egg counts on forage legumes in KENTUCKY were considered to be moderate, ranging from 30 to 200 per 0.09 sq m. During April, larval populations built up rapidly. Populations reached economic levels in some alfalfa fields in the southern area during early April. By late April most fields in the area had reached economic levels and most untreated fields were heavily damaged. Also, by late April, larvae in the southern area were beginning to pupate, while in the northern area populations were just reaching damaging levels.

During early May, just as alfalfa weevil populations were reaching peak levels in Kentucky, a fungal disease present in many alfalfa fields was responsible for the death of large numbers of larvae in some fields after much of the damage was already done. The effect of this disease on the 1980 weevil population is unknown, but hopefully larval populations will be reduced. It is estimated that about 65% of the alfalfa hectares was treated at least once and that 5-10% of the hectares received a second application. This treatment rate is nearly the same as in 1978.

After several years at a fairly constant level, alfalfa weevil greatly increased in 1979 in MICHIGAN. A likely explanation for this is the early spring temperatures that held back the parasites while the weevil development proceeded. The increase was statewide. Alfalfa weevil populations were light to moderate in SOUTH CAROLINA in 1979. Very little damage occurred in forage legume fields where timely controls were applied. Populations of 2nd and 3rd instar alfalfa weevil larvae were on alfalfa in Franklin County, PENNSYLVANIA, on May 8. No noticeable damage had occurred at this time.

MEXICAN BEAN BEETLE (Epilachna varivestis) adults reportedly defoliated alfalfa in a few fields in northern KENTUCKY during September. This damage was limited to small fields or borders of fields near soybean fields.

In April VARIEGATED CUTWORM (Peridroma saucia) larvae were active on alfalfa in the Low Desert District of CALIFORNIA. Heavy, widespread infestations in OKLAHOMA damaged alfalfa from late April to the end of May. Most damage was to regrowth after the first cutting with many fields held back for 2-3 weeks. Counts ranging 3-34 per 0.09 sq m were commonly reported in many counties in the northwestern, north-central, northeastern, west-central, central, east-central, southwestern, and south-central areas. Large numbers of larvae were reported pupating in most areas by May 25 and numbers decreased rapidly after this date.

Overall, ARMYWORM (Pseudaletia unipuncta) was the most widespread of the general feeding insects in MICHIGAN and damaged alfalfa. The Upper Peninsula and the northern and southwestern counties of the Lower Peninsula were the areas most affected. Several counties in the Upper Peninsula were especially heavily infested and at one time all Upper Peninsula counties reported damage to crops. Control, as usual, was variable and there were continuing problems of obtaining insecticides and aerial contractors. The worst problem, and this applies to the other insects also, was that the pest was not even detected before the damage was heavy.

BEET ARMYWORM (Spodoptera exigua) larvae were light in March in alfalfa fields in the Salinas Valley District of CALIFORNIA.

Heavy infestations (3-12 per 0.09 sq m) of ARMY CUTWORM (Euxoa auxiliaris) in OKLAHOMA damaged alfalfa in scattered areas in the west-central, northwestern, and north-central counties during March and early April.

Nymphal and adult populations of THREECORNERED ALFALFA HOPPER (Spissistilus festinus) were much heavier on alfalfa in NEW MEXICO in 1979. Treatment was required in a few fields. Heavy losses in certain alfalfa fields in the Piedmont section of SOUTH CAROLINA occurred during midsummer in 1979. Damage was not noticed until heavy losses occurred in many fields. No controls were applied.

The first POTATO LEAFHOPPER (Empoasca fabae) adults of the season were observed in Fayette County, KENTUCKY, on May 7. Populations began to reach economic levels in some alfalfa fields in the southern area during mid- to late June. Heaviest populations occurred from mid-July through early August. About 7% of the alfalfa hectares was estimated to have been treated during 1979 which is a substantial increase over the 1% or 2% of hectares estimated to have been treated in past years. Part of this increase is undoubtedly related to growers finally becoming aware of the damage this pest can cause and to some extent the involvement of the pest management program in identifying fields that are infested with potentially damaging numbers.

The first potato leafhopper adult in ILLINOIS was collected in an alfalfa field in Mason County on April 30. Occasional adults were collected in Brown and Marion Counties during the third week of May. Adult numbers increased slowly during late May in the southern two-thirds of the State and reached the economic threshold (0.5-1 per sweep) in scattered fields. Nymphs were first observed during the first week of June in the southern area. Leafhopper numbers at or above the economic threshold were common in fields throughout much of the State by mid-June.

Damage by the potato leafhopper in Illinois was first reported from second-crop alfalfa in the southern area during the last week in June. Numbers remained threatening throughout July, and occasional fields showed typical damage. Timely rains in July kept the alfalfa crop healthy, and much damage was averted. An estimated 8,900 ha of alfalfa were treated for this pest in 1979, 21% less than the hectares treated in 1978. All damage occurred to second and third growth alfalfa. Several fields which should have been treated, or that showed signs of damage, were not treated.

Potato leafhopper was rated the worst agricultural pest of the year in INDIANA by several pest management firms in the east-central and northeastern districts, and probably most of the 169,969 ha of alfalfa in the State could profitably have been treated before the second or third cuttings. Several

alfalfa fields had unusual economic numbers of potato leafhopper in stubble; such fields were at the northern and southern ends of the State. The first adult was observed May 7 in Howard County. Alfalfa in the southern district was at or near treatment level by mid-June, and early in July the rest of the State had reached that stage.

BLUE ALFALFA APHID (Acyrtosiphon kondoi) was active on 2,023 ha of alfalfa at 20-100 per stem in the southern coast district of CALIFORNIA in April.

Blue alfalfa aphid continued to spread in OKLAHOMA with 16 new county records established in 1979. This species was collected from alfalfa from mid-April to early July. Most infestations averaged less than 100 per 10 sweeps, but counts averaging 350 per 10 sweeps were found in Payne County on May 12 and counts ranged up to 225 per 10 sweeps in several Panhandle and northwestern counties the first week of June. This species was more common than the PEA APHID (Acyrtosiphon pisum) during April and May (75-100% of the Acyrtosiphon population) except in the Panhandle and northwestern counties where the former species was 0-30% of the population. A few specimens were collected in mid-November in Payne County for the first fall records of this species in the State.

PEA APHID (Acyrtosiphon pisum) and an APHID (Macrosiphum creelii) were particularly severe on alfalfa in WASHINGTON in 1979, with as many as 3 aphicide applications necessary by late June. These increased applications and cool weather are possibly the cause of light populations of the beneficial predator insects in seed crops.

Pea aphid populations were much lighter in NEW MEXICO during 1979 than in 1978. A buildup was noted during April in alfalfa fields in the Pecos Valley, but predators and parasitic wasps reduced populations to noneconomic levels during summer and fall.

Pea aphid was reported in alfalfa from late March to early October in OKLAHOMA. Numbers were mostly light but 250-750 per 10 sweeps were found in several Panhandle and Northwestern counties the first week of June. By April 24, hatched to two-third-grown pea aphids in WISCONSIN were found on forage legumes as far north as Buffalo County in the west-central area and Winnebago County in the east-central area. Populations ranged 0-6 per 50 sweeps.

SPOTTED ALFALFA APHID (Therioaphis maculata) in WASHINGTON reached treatable levels on alfalfa in the White Swan and Harrah areas of Yakima Valley. Although discovery of this aphid is not the first in the State, this insect has never before reached economic levels. This aphid has overwintered for the first time in the State in 1979. Infestations in OKLAHOMA were reported in alfalfa from mid-June to early November. The heaviest infestation, 160 per 10 sweeps, for 1979 was reported in Roger Mills County in early August.

LYGUS BUGS (Lygus spp.) were a problem in seed alfalfa fields in Quay, Chaves, and Eddy Counties, NEW MEXICO, during June. Loss in seed yields was caused when not controlled.

GRASSHOPPER egg hatch in MINNESOTA occurred during the second week of June. First and 2nd instar nymphs appeared in trace numbers in alfalfa during June 10-15. Surveys taken in 145 alfalfa fields in 29 counties showed trace to less than 1 per 0.8 sq m. Populations remained below economic levels throughout the alfalfa growing region in 1979. The most common species were Melanoplus femurrubrum (60%), Melanoplus differentialis (30%), and Melanoplus bivittatus (10%).

Grasshoppers in MICHIGAN were second to the ARMYWORM (Pseudaletia unipuncta) in the area infested. The alfalfa areas most affected were the northern Lower Peninsula and the west-central and east-central counties in the State. Damage was especially heavy in several northern Lower Peninsula counties where small fields of crops are interspersed among large areas of the idle lands that are breeding areas for the grasshoppers. Insecticide control was effective, except for the continuing re-infestation in the northern counties. The continued warm weather in late summer of 1978 and the slow, dry spring of 1979 contributed to the problem. The warm early fall of this year could mean a problem in 1980.

SOYBEANS

Highlights

PHYTOPHTHORA ROT was more prevalent than usual on soybeans in areas of Kansas and Nebraska. SOYBEAN DOWNY MILDEW was the most prevalent soybean disease in Michigan. SOYBEAN CYST NEMATODE expanded its distribution in Michigan. MEXICAN BEAN BEETLE increased on soybeans in areas of Kentucky and Delaware. VELVETBEAN CATERPILLAR was heavy and earlier in Florida and severe in South Carolina. CORN EARWORM caused pod damage in a few areas of Oklahoma and South Carolina. Populations were brought under control in North Carolina. SOUTHERN GREEN STINK BUG may be a major problem in South Carolina in 1980.

DISEASES

In a typical NEBRASKA year, SOYBEAN POD AND STEM BLIGHT (Diaporthe (Phomopsis) phaseolorum var. sojae) caused by the imperfect stage Phomopsis sojae can be observed in the form of signs (perithecial stroma) on the stems of infected mature soybeans. In 1979 the disease was again present, but the prevalence was somewhat less than usual. By early October, signs of the disease could be observed on plants in about 90% of the fields in the eastern area. The prevalence of plants showing signs of stem blight ranged 10-30%, averaging 20% in most fields where the disease was present.

Soybean pod and stem blight and BEAN POD BLIGHT (Diaporthe phaseolorum) were widely distributed on soybeans in MICHIGAN. Wet conditions, late in the growing season, were ideal for their development.

The incidence of PHYTOPHTHORA ROOT ROT (Phytophthora megasperma var. sojae), SOYBEAN STEM CANKER (Diaporthe phaseolorum var. caulivora), and RHIZOCTONIA ROOT ROT (Rhizoctonia solani) in KANSAS was greater on soybeans in 1979 than in 1978 and was most active in the east-central, south-central, central, northeast, and southeast districts. Soybean stem canker was observed only in the north-central and east-central districts and rhizoctonia root rot was a problem in a few fields in Linn County early in the season.

During most years in NEBRASKA, phytophthora root rot is neither widely distributed nor very severe on soybeans. In 1979 the disease was somewhat more common than usual in fields in the eastern and northeastern districts. By late July the disease could be found in about two-thirds of the fields in these districts. In fields in which the disease was found, prevalence ranged from 0.5 to 3%, with 1% representing an average. Only trace amounts of the disease were found in a few fields, in the remaining soybean-growing areas of the State.

The levels of CHARCOAL ROT (Macrophomina phaseolina), the most damaging soybean disease in KANSAS in 1978, were dramatically reduced from levels observed in 1978. This disease was observed in trace amounts in widely scattered fields in the south-central, northeastern, and east-central crop growing districts.

BROWN STEM ROT (Phialophora gregata) was detected in 6 new counties in 1979 in WISCONSIN. See CPPR 5(3):72. Prevalence on soybeans averaged 5% and severity 3%, double the 1978 level. Infection was found in 33 of 72 fields surveyed the second week of September.

SOYBEAN BROWN SPOT (Septoria glycines) was observed in KANSAS in scattered soybean fields in the eastern one-third of the State early in the season. Soybean brown spot in NEBRASKA is a common but not very damaging disease of soybeans in most years, including 1979. By mid-August, the disease could be found in most fields in the State. The typical prevalence/severity ratings reported in these fields were trace to 10%/trace to 5%.

SOYBEAN BACTERIAL BLIGHT (Pseudomonas glycinea) and BACTERIAL PUSTULE (Xanthomonas phaseoli var. sojense) in KANSAS were 2 of the 3 most prevalent foliar diseases on soybeans in 1979 and were widespread over the eastern two-thirds of the State.

Over the past several years, soybean bacterial blight has been the most common disease affecting soybeans in NEBRASKA. In a typical year by mid-August (beginning pod growth), most fields are showing 60-100% prevalence and at least 10% severity. In 1979, the development of the disease was much slower than usual. By mid-August the average prevalence/severity present in fields in the eastern one-third of the State was only 20%/5%. By mid-September the prevalence/severity in this area had reached the maximum observed, 5-25%/5-15%.

SOYBEAN DOWNY MILDEW (Peronospora manshurica) in KANSAS was 1 of 3 most prevalent foliar diseases on soybeans in 1979 and was observed in the northeastern, east-central, southeastern, and south-central districts.

The most prevalent disease of soybeans in MICHIGAN was soybean downy mildew. The humid conditions late in the season were congenial for the development of the disease. The disease was also prevalent in 1978. Damage in previous years has not been significant. Nonetheless, this fungus defoliated soybeans in some fields. Therefore, the yield loss potential of this disease should not be overlooked.

A LEGUME VIRUS on soybeans in MICHIGAN was as severe as in 1978. Studies are underway to characterize the virus.

Aerial survey for detection of SOYBEAN CYST NEMATODE (Heterodera glycines) in MINNESOTA began on August 1 and was completed by August 24. A total of 31 counties was surveyed. Aerial survey and ground followup in 1979 resulted in confirming the disease in 6 additional counties, bringing the total affected counties in the State to 7. See CPPR 3(40-41): 574, 4(40):784, 4(42):817, and 5(3):73.

INSECTS

MEXICAN BEAN BEETLE (Epilachna varivestis) larvae and adults were more abundant than ever on soybeans in the northern region of KENTUCKY along the Ohio River. Heavy populations were also reported in a few isolated cases in other areas of the State late in the season. An estimated 10-15% of the soybeans in the

northern region was treated for Mexican bean beetle, which is up considerably from the 2-5% reported in 1977 and 1978. However, the percent of hectares treated statewide for Mexican bean beetles was still under 1%. A severe outbreak of third generation larvae and adults in DELAWARE occurred on soybeans in New Castle, Kent, and northern Sussex Counties.

The first BEAN LEAF BEETLE (Cerotoma trifurcata) in ILLINOIS was collected in a Johnson County alfalfa field on April 16. By the first week in June, many fields of newly emerged soybeans throughout the State were being fed upon. Feeding damage was reported well into August but was seldom, if ever, serious.

An estimated 1,000 ha of soybeans were treated for bean leaf beetle in 1979, 89% less than the hectares treated in 1978.

During April, surveys for overwintered larvae of GRAPE COLASPIS (Colaspis brunnea) in soybean stubble in ARKANSAS revealed over 1 larva per 500 cc soil sample in Monroe County. Lawrence County larval surveys were negative. Larvae were relatively heavy (averaging 6 per 500 cc soil sample) in Lee County during May. By early mid-June, most larvae were full grown and some adults had emerged. Soybean plants showing root gouging by the larvae had virtually no above ground symptoms, indicating compensation had probably occurred.

Surveys for overwintering grape colaspis larvae in harvested soybean fields in Arkansas during November revealed more larvae at the lower levels. Eight fields were sampled in Lee and Desha Counties, with 12 sites randomly chosen in each field where soil cores at the top (0-9 cm), middle (9-18 cm), and lower (18-23 cm) levels were taken. The larval counts per 12 samples in Lee County averaged 0.13 (top), 6.0 (middle), and 25.8 (lower). In Desha County, only 2 larvae (lower level) were found in 8 fields, 0 at all other levels.

STRIPED BLISTER BEETLE (Epicauta vittata) adults in ARKANSAS were especially abundant in spots in eastern area soybean fields during July.

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) populations on soybeans in FLORIDA were heavy in 1979 and appeared 1-2 weeks earlier than in 1978. Velvetbean caterpillar infestations in SOUTH CAROLINA caused severe defoliation (99% in some soybean fields) during 1979. Peak populations occurred during the last week in September, with the greatest damage in Jasper County. There was a gradient of lesser damage to the north but thresholds were exceeded throughout the Savannah Valley and into the Pee Dee District.

GREEN CLOVERWORM (Plathypena scabra) larvae in ARKANSAS were relatively light throughout the season in soybean fields with virtually no reports of economic damage. During September, disease prevalence among larvae was very heavy. Larval populations in soybeans in KENTUCKY remained fairly light throughout the season. Populations peaked at an average of 1-2 larvae per 0.3 row m and very few, if any, soybeans were treated for this pest during 1979.

Green cloverworm remained light in ILLINOIS throughout July and August. The largest count was 2 larvae per 0.3 row m reported from a southern area soybean field. Diseased and parasitized larvae were often observed. Infestations caused little damage. An estimated 1,000 ha were treated in 1979, 89% less than the hectares treated in 1978.

SOYBEAN LOOPER (Pseudoplusia includens) in FLORIDA was a problem on soybeans only in Madison and the western Panhandle counties. Populations of this species and CABBAGE LOOPER (Trichoplusia ni) in SOUTH CAROLINA were below normal. Unusually wet weather promoted fungal control of these pests.

Relatively heavy larval numbers of NOCTUID MOTHS (Heliothis spp.) in ARKANSAS, reportedly damaged soybean plants in a few fields in the east-central area during late July. However, throughout the State and for most of the season, CORN EARWORM (Heliothis zea) in soybeans was extremely light, with almost no other reports of damage.

CORN EARWORM (Heliothis zea) was the only insect in OKLAHOMA causing much damage to soybeans past the seedling stage. Even it was light in most areas. Heavy infestations and up to 30% pod damage were found in some fields in Nowata, southern Sequoyah, northern Le Flore, and Garvin Counties in early September. Corn earworm populations on soybeans in FLORIDA, primarily in Gadsden County, were heavier than in the last 2 years. Populations on soybeans in SOUTH CAROLINA could be considered normal on a statewide basis but there were areas of heavy infestation in the lower Savannah Valley. Threshold levels for pod feeding were exceeded during the last 2 weeks of August. Foliage feeding was less of a problem than in previous years.

Corn earworm infestations in corn in NORTH CAROLINA (see CPPR 5(2):62-63) suggested low to high potential for soybean damage from the third generation. Light trap collections in Scotland, Robeson, and Sampson Counties began escalating on July 25. Small larvae were detected in 20 of 50 soybean fields sampled on August 8 in the southern Coastal Plain. The heaviest infestations developed in the area south of Martin, Wilson, and Johnston Counties with 50+% of the hectares reaching threshold August 13-24. Infestations in Halifax, Northampton, Edgecombe, and Bertie Counties peaked August 24-28 with about 20% of the hectares reaching threshold. Late planting resulted in about 50% of the fields with open canopies and blooms during peak adult flight. This condition proved highly favorable to larval establishment. Population decline resulting from chemical treatment and pupation brought most fields below threshold September 3-7. Population levels exceeding 5 times the threshold level were observed in about 5% of the southern and central Coastal Plain fields. The threshold level in North Carolina is 2 larvae, 13 mm or longer, per 0.3 row m.

Subeconomic infestations of SOYBEAN THRIPS (Sericothrips variabilis) occur annually on soybeans in NORTH CAROLINA. However, surveys June 15-20 revealed economic injury in scattered central Coastal Plain fields. Less than 1% of the infestations, primarily water-stunted spots, required insecticides to abate rapid terminal foliage damage. The infestation peaked on June 18-20. Rapid soybean growth during late June resulted in little yield loss.

GREEN FRUITWORM (Lithophane antennata) larvae feed primarily on trees. In ILLINOIS in 1979, however, large populations defoliated areas in soybean and corn fields next to wooded areas. Damage was usually confined to field margins.

An outbreak of SILVERSPOTTED SKIPPER (Epargyreus clarus) occurred in late August and September in DELAWARE with the highest populations occurring in southern Kent and Sussex Counties. Economic populations of larvae occurred in about 5% of the soybeans in this area.

Heavy populations of SOUTHERN GREEN STINK BUG (Nezara viridula), on soybeans (up to 26 per 0.3 row m) developed in SOUTH CAROLINA in late October in the Coastal Plain. This pest has been insignificant for the past 2 years but may be a major problem in 1980.

Although GREEN STINK BUG (Acrosternum hilare) adults were numerous in black-light traps in KENTUCKY in mid-July, heavy populations did not develop and only 1% of the soybean hectares was estimated to have been treated for this pest.

In early July, mostly large nymphs of TWOSTRIPED GRASSHOPPER (Melanoplus bivitatus) were feeding heavily around the border areas of some soybean fields in the southwestern area of ARKANSAS.

Melanoplus spp. damaged soybeans in KENTUCKY along field borders, near grass waterways and in no-till double crop fields at scattered locations throughout the State. The severity of the problem was greatly reduced by the more than adequate rainfall that kept alternate food sources lush and green. About 1% of the soybean hectares was estimated to have been treated for grasshoppers.

PEANUTS

INSECTS

CORN EARWORM (Heliothis zea) was one of the most important pests of peanuts in FLORIDA during 1979 although, overall, insects were not a major problem. Infestations were damaging during late July and remained a problem until mid-August on peanuts in Jackson County. Damage to 22,258 ha was estimated at 0.6% or \$217,000. About 10% of the peanut hectares in SOUTH CAROLINA was infested with about \$4,500 spent on control.

Corn earworm infestations on peanuts in NORTH CAROLINA began developing on August 20 in the Bladen and Sampson County areas and August 27-30 in Northampton, Halifax, Gates, Hertford, and Edgecombe Counties. Population reached threshold (4 larvae per 0.3 row m) on about 20% of 67,178.0 ha. Infestations declined rapidly by September 7-13 due to pupation and chemical controls.

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) was one of the most important pests of peanuts in FLORIDA during 1979 although, overall, insects were not a major problem. Heavy populations occurred on peanuts in Jackson County in mid-September, later than in 1978. Most growers were already applying insecticidal sprays by that time, and little actual damage occurred. Damage to 2,023 ha was estimated at 0.3% or \$108,900.

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) on dryland peanuts in OKLAHOMA was lighter than usual in 1979, probably due to above normal rainfall during the summer. Infestations in Marshall County were not found until July 20 and the heaviest reported was 50% of the plants in early September.

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) infested about 10% of the peanut hectares in SOUTH CAROLINA with 5% yield loss and \$9,000 control costs.

SPIDER MITES (Tetranychus spp.) caused considerable problems in peanuts in some areas of Caddo County, OKLAHOMA, from late July to early October.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

POSTAGE
U.S. 1

NATIONAL AGRICULTURAL LIBRARY



1023169293

LIBRARY

34/033NIDLANESR R1 CPR-0001

~~DR IVAN W KIRK~~ ASST AD

USDA SER SR

P O BOX 19687 S REG RES CNTR

NEW ORLEANS

LA 70179



QSB
823
253

Cooperative PLANT PEST REPORT

3/28
U.S. February 29, 1980
DEPARTMENT
OF AGRICULTURE Vol. 5
No. 5

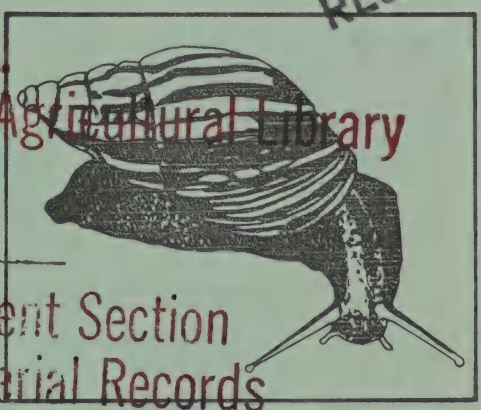
Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY
MAR 13 1980

RECEIVED



U. S. D. A.
National Agricultural Library
received
Procurement Section
Current Serial Records



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

FIRE BLIGHT active in eastern Oklahoma. (p. 109).

Detection

New county and island records on page 112.

Special Reports

Summary of Pest Conditions in the United States - 1979

Cotton. (p. 114-116).

Tobacco. (p. 116-118).

Miscellaneous Field Crops. (p. 118-120).

1980 Grasshopper Outlook. Map. Centerfold.

Pests Not Known to Occur in the United States or of Limited Distribution.

SENN PEST (Eurygaster integriceps Puton). (p. 121-124).

Reports in this issue are for the week ending February 22 unless otherwise indicated.

CONTENTS

Forage Legumes		Forest and Shade Trees	
Insects.....	109	Insects.....	110
General Vegetables		Man and Animals	
Insects.....	109	Insects.....	110
Deciduous Fruits and Nuts		Households and Structures	
Diseases.....	109	Insects.....	110
Insects.....	109		
Ornamentals			
Insects.....	109		
 Federal and State Programs			
Insects.....	110		
Hawaii Pest Report.....	111		
Corrections.....	111		
Light Trap Collections.....	111		
Detection.....	112		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	113		
Summary of Pest Conditions in the United States - 1979			
Cotton			
Diseases.....	114		
Insects.....	114		
Tobacco			
Diseases.....	116		
Insects.....	116		
Miscellaneous Field Crops			
Diseases.....	118		
Insects.....	118		
Pests Not Known to Occur in the United States or of Limited Distribution.			
SENN PEST (<u>Eurygaster integriceps</u> Puton).....	121		
1980 Grasshopper Outlook. Map. Centerfold.			

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - FLORIDA - District> County= larvae and adult per 100 sweeps of alfalfa: C> Alachua= 178 and 1 at Gainesville. (F.W. Mead).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= larvae and adults per 100 sweeps of alfalfa: C> Pinal= 200 and 20-60 and SW> Yuma= 30-300 and 80, too numerous to count at Parker. (P. Gomez et al.).

PEA APHID (Acyrtosiphon pisum) - FLORIDA - District> County= immatures and adults per 100 sweeps of alfalfa: C> Alachua= about 400 at Gainesville. Some leaves killed by recent light freeze. (F.W. Mead). ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 1,800 in Yuma Mesa area, too numerous to count at Yuma Valley, 20 in treated fields. (P. Gomez et al.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 150. (P. Gomez et al.).

GENERAL VEGETABLES

INSECTS

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - District> County= status per 50 lettuce plants: SW> Yuma= very light, egg masses increased. (J.A. Bedford).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= status per 50 lettuce plants: SW> Yuma= moderate to heavy. (J.A. Bedford).

DECIDUOUS FRUITS AND NUTS

DISEASES

FIRE BLIGHT (Erwinia amylovora) - OKLAHOMA - Area> status on crabapple week ending February 15: E> active on trees due to warm winter weather. (K.E. Conway).

INSECTS

WINTER MOTH (Operophtera brumata) - OREGON - Eggs still orange in field, no larval development to date. Eggs collected last fall, stored under laboratory conditions in dark at 7.2-13°C, began to hatch. Several unidentified ichneumonid wasps emerged during week from unemerged winter moth pupae removed from cold storage. (R.L. Penrose, D. Kimberling).

ORNAMENTALS

INSECTS

OLEANDER SCALE (Aspidiotus nerii) - FLORIDA - New county record. District> County= collection data from Aucuba japonica (Japanese aucuba) plants: NW> Okaloosa= heavy on 4 plants brought to nursery at Destin, collected by D. Reese, January 28, 1980, determined by A.B. Hamon. Plants in Destin 1+ years. (D. Reese).

A DIASPIDID SCALE (Lepidosaphes pallida) - FLORIDA - New county record. District> County= collection data from Juniperus sp. (a juniper) plants: NW> Okaloosa= heavy on 99% of 500 plants at nursery in Valparaiso, January 22, 1980, collected by D. Reese, determined by A.B. Hamon. Plants in nursery 1+ years. (D. Reese).

FOREST AND SHADE TREES

INSECTS

A WALKINGSTICK (Diapheromera velii) - OKLAHOMA - New county record. District> County= collection data from unidentified wild legume: C> Kingfisher= on roadside 10 km west of Kingfisher, September 5, 1979, collected and determined by D.C. Arnold. (D.C. Arnold).

A WALKINGSTICK (Diapheromera persimilis) - OKLAHOMA - New county record. District> County= collection data from unidentified wild legume: C> Kingfisher= on roadside 10 km west of Kingfisher, September 5, 1979, collected and determined by D.C. Arnold. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

A LEPTINID BEETLE (Platypsyllus castoris) - OKLAHOMA - New county record. District> County= collection data from Castor canadensis (beaver): C> Payne= numerous specimens taken at Lake Carl Blackwell, December 20, 1979, by R.W. Barker, determined by W.A. Drew. (D.C. Arnold).

HOUSEHOLDS AND STRUCTURES

INSECTS

OLD HOUSE BORER (Hylotrupes bajulus) - KENTUCKY - New county record. District> County= collection data from barn siding used for paneling in home: E> Laurel= at London, October 18, 1979, by T. Smallwood, determined by D.M. Anderson. (P.E. Sloderbeck).

FEDERAL AND STATE PROGRAMS

INSECTS

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States January 27 to February 9. Total of 12 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 237 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 26,509,020, all in Texas. Total of 412,101,060 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - MELON FLY (Dacus cucurbitae) - Island= status on togan squash: Oahu= infestations and damage heavy on 0.04645 ha at Hawaii Kai. (L.M. Nakahara).

Ornamental and Shade Trees - A WHITEFLY (Aleurodicus dispersus) - Island= status: Oahu= generally trace on various plants along windward coast from Kahaluu to Kahuku. Moderate in isolated pockets from Kaaawa to Laie. New infestations on young Terminalia catappa (tropical-almond) leaves along coastline. (B.R. Kumashiro et al.).

Miscellaneous - BROWN GARDEN SNAIL (Helix aspersa) - Island= collection data. Oahu= new island record collected from residential property at Kapahulu, January 30, 1980, by L. Pinter, determined by S.Y. Higa. Total of 27 snails (diameter 6-30 mm) recovered from 4 residential properties in subsequent surveys. Hawaii= total of 283 snails (diameter 5-31+ mm) recovered during January at Waimea where infestations first discovered in 1976. Snails recovered from areas overgrown with tall grasses and weeds and from bases of rock walls and plant hedges. (T.M. Watanabe et al.).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 2/14-20, BL - ARMYWORM (Pseudaletia unipuncta) 1, BLACK CUTWORM (Agrotis ipsilon) 2, GRANULATE CUTWORM (Feltia subterranea) 3, SALT-MARSH CATERPILLAR (Estigmene acrea) 1, and VARIEGATED CUTWORM (Peridroma saucia) 1.

CORRECTIONS

CPPR 5(1):11 - ASPARAGUS APHID (Brachycolus asparagi) should read AN APHID (Brachycolus asparagi).

CPPR 5(1):33 - STATE SURVEY COORDINATORS - Illinois - Please add: Steve Moore III, University of Illinois, 172 Natural Resources Building, Urbana, IL 61801 Phone: 217-333-6651 (S. Moore III).

CPPR 5(2):53 - Fifth line from bottom for SOUTHERN CORN BILLBUG (Sphenophorus callosus) and MAIZE BILLBUG (Sphenophorus maidis) should read "...Coastal Plains of North Carolina...."

CPPR 5(3):76 - A WEEVIL (Baris lepidii) should read IMPORTED CRUCIFER WEEVIL (Baris lepidii).

DETECTION

NEW COUNTY AND ISLAND RECORDS

INSECTS

A DIASPIDID SCALE (Lepidosaphes pallida) - FLORIDA - Okaloosa. (p. 110).

A LEPTINID BEETLE (Platypsyllus castoris) - OKLAHOMA - Payne. (p. 110).

OLD HOUSE BORER (Hylotrupes bajulus) - KENTUCKY - Laurel. (p. 110).

OLEANDER SCALE (Aspidiotus nerii) - FLORIDA - Okaloosa. (p. 109).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - WISCONSIN - District> County= collection data from multilure trap: NE> Forest= near Laona, September 14, 1979, collected and determined by S. Banash. (O.L. Lovett).

A WALKINGSTICK (Diapheromera persimilis) - OKLAHOMA - Kingfisher. (p. 110).

A WALKINGSTICK (Diapheromera velii) - OKLAHOMA - Kingfisher. (p. 110).

SLUGS AND SNAILS

BROWN GARDEN SNAIL (Helix aspersa) - HAWAII - Oahu. (p. 111).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Adoretus sinicus</u> Burmeister Chinese rose beetle Det. R. Kunishi	adult	on leaves of balsam pear from baggage	Hawaii	Honolulu	G. Chinen	CA
<u>Cataenococcus guatemalensis</u> (Ferris) a mealybug Det. S. Nakahara	adult	on leaves of <u>Laelia</u> plants from cargo	Mexico	Los Angeles	R. Hashimoto	CA
<u>Ceratitis capitata</u> (Wiedemann) Mediterranean fruit fly Det. R.H. Foote	larval	in <u>Capsicum</u> from baggage	Africa	Kennedy Airport	T. Gary	OR
<u>Chrysomphalus pinnulifer</u> (Maskell) a diaspidid scale Det. S. Nakahara	adult	on leaves of orchid plants from cargo	Madagascar	Los Angeles	S. Downing	CA
<u>Dacus dorsalis</u> Hendel oriental fruit fly Det. R. Kunishi	larval	in citrus fruit from baggage	Hawaii	Honolulu	A. Mendoza	CA
<u>Dryocoetes villosus</u> (Fabricius) a scolytid beetle Det. D.M. Anderson	larval adult	in dunnage	United Kingdom	Port Arthur	S. Rose	TX
<u>Earias</u> sp. a noctuid moth Det. D.M. Weisman	larval	in okra from baggage	Nigeria	Kennedy Airport	M. Knez	NY
<u>Talponia batesi</u> Heinrich an olethreutid moth Det. D.M. Weisman	larval	in custard apple from baggage	Mexico	San Diego	G. Piro	CA

COTTON

Highlights

BOLL WEEVIL infestations were economic on cotton in South Carolina for the first time in years. In North Carolina, a late summer population heavier than in 1977 or 1978 combined with a mild winter may lead to economic damage in 1980. TOBACCO BUDWORM was unusually rare on cotton in Arkansas. This species and BOLLWORM caused an estimated 8% yield loss in South Carolina. TARNISHED PLANT BUG, CLOUDED PLANT BUG, and COTTON FLEAHOPPER were severe in eastern Arkansas.

DISEASES

High incidence of VERTICILLIUM WILT (Verticillium albo-atrum) in NEW MEXICO was noted in cotton fields at Columbus, Luna County, during August.

A ROOT-KNOT NEMATODE (Meloidogyne sp.) was found in cotton fields at Hatch and Anthony, Dona Ana County, NEW MEXICO, during August.

INSECTS

No BOLL WEEVIL (Anthonomus grandis grandis) adults were collected in Leggett traps operated during 1979 in NEW MEXICO. There were 75 traps in Lea County, 126 traps in Eddy County, and 44 traps in Dona Ana County operated from April 16 to June 29 and from August 13 to November 2.

Boll weevil was extremely light in OKLAHOMA. Punctured cotton squares were reported only once, a 6% infestation in Jackson County the second week of September. Light numbers of adults were taken in pheromone traps in the southwestern area beginning about May 20. Numbers were very low the entire season, never averaging more than 1 per trap per week. No weevils were collected in 20 traps in Washita County in late June. Although trap catches in ARKANSAS indicated generally low populations of overwintered adults on cotton statewide, a small area in the southeast reportedly suffered 75-100% punctured squares during August.

Boll weevil infested cotton in economic levels in SOUTH CAROLINA for the first time in several years. About 30% of the cotton was infested with about a 3% yield loss and \$172,500 being spent on controls. Population monitoring was conducted during 1979 in 5 counties that fall within a 161-km zone outside the North Carolina and Virginia boll weevil eradication trial area. Grandlure traps were placed in or around cotton fields on the basis of 1 trap per 30 ha of cotton. Traps were monitored and pheromone wicks replaced every 2 weeks from August 1 until November 1. Trap results are as follows:

County	Mean number of boll weevils per trap						Total trapped	Number of traps
	Aug 11-24	Aug 25 to Sep 7	Sep 8-21	Sep 22 to Oct 5	Oct 6-19	Oct 20 to Nov 2		
Darlington	2	7	10	11	21	40	4,195	49
Dillon	4	8	19	25	37	81	19,662	125
Florence	3	7	21	15	28	73	1,338	10
Marion	7	15	16	48	24	230	2,146	7
Marlboro	2	5	16	30	41	58	41,363	341

An apparent boll weevil buildup in NORTH CAROLINA on cotton during the late summer of 1979 concerned entomologists and growers. Pheromone traps reveal a greater increase than in 1977 or 1978. Field surveys supported these trap indications in the Scotland County area. Most growers in the State have not experienced economic damage from this pest since the early 1970's and are warned not to overlook the potential of this pest should 1979-1980 prove to be a mild winter.

BOLLWORM (Heliothis zea) eggs in NEW MEXICO were abundant on cotton in Eddy and Chaves Counties, but larval populations remained low, probably due to large numbers of beneficial insects. About 200 ha required treatment in Eddy County that had previously been treated to control grasshoppers. Bollworm was active in cotton in southwestern OKLAHOMA by the last week of June.

TOBACCO BUDWORM (Heliothis virescens) larvae in OKLAHOMA were first found in Grady County on July 20. Infestations were generally light to moderate on cotton through mid-August except for a brief period in mid-July in Jackson County when 35 eggs per 100 terminals were found in some fields. Heavier infestations were present on a scattered basis in the southwestern counties during late August and early September. Tobacco budworm was as low as 20% of the population in some areas and as high as 67% in other areas.

H. zea and H. virescens larval pressure in ARKANSAS began in the extreme southeastern area in mid-July with numbers of almost 1 per plant. Infestations at that time were extremely spotty however. Heliothis pressure across the eastern area was very light after this early flurry of spotty activity. Numbers were particularly light in the northeastern area where almost no problem fields developed over the entire season. In the southeastern area, infestations continued spotty, but overall numbers were much lower than normal for the season. A striking majority of larvae for the whole year were bollworm, with tobacco budworm rarely found.

H. zea and H. virescens in SOUTH CAROLINA were the major insects causing problems on cotton in 1979 with about \$5,520,000 being spent for control. This complex caused an estimated 8% yield loss during 1979.

H. zea pressure in NORTH CAROLINA was generally low on all 20,234 ha of cotton. Growers in the BOLL WEEVIL (Anthonomus grandis grandis) eradication zone (northern Coastal Plain) again experienced relatively light bollworm pressure on the 5,260.9 ha. The number of insecticide treatments ranged 0-6 per field statewide. Most producers in the Cleveland County area have not applied controls in 2 years.

FALL ARMYWORM (Spodoptera frugiperda) larval numbers accounted for up to 15% of the cotton leaf-feeding larvae in some southeastern ARKANSAS fields during August, an unusually high percentage.

YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) larvae of all sizes, totaling 5-9 per 0.3 row m, were found in some southeastern ARKANSAS cotton fields in early June.

COTTON LEAFWORM (Alabama argillacea) larvae in ARKANSAS were more abundant, up to 2 per 0.3 row m, in some southeastern area cotton fields during September than had been observed in the last 20 years. No serious economic damage was reported.

A MEALYBUG (Phenacoccus solenopsis) was active on cotton in the Low Desert district of CALIFORNIA in mid-September, covering some plants entirely. Stunting of cotton and leaf drop were observed.

By early July, relatively high numbers of TARNISHED PLANT BUG (Lygus lineolaris) nymphs were causing concern to cotton growers across eastern ARKANSAS. During mid-July, COTTON FLEAHOPPER (Pseudatomoscelis seriatus) outnumbered tarnished plant bug in some northeastern and southeastern fields. By July 20, plant bugs in southeastern fields had reached the most severe levels in 10 years. Most fields in a number of locations had surpassed treatment level. Problems continued through July and into early August. In some southeastern areas, cotton fleahopper accounted for 80-90% of the plant bugs. At the same time, tarnished plant bug had become predominant in the northeast. Some fields had almost equal numbers of tarnished plant bug and CLOUDED PLANT BUG (Neurocolpus nubilus). A relatively high percentage of eastern area fields was treated at least once in July and August. By late August almost all fields in the northeast and most fields in the southeast had lower plant bug numbers.

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) was common in cotton in the southwestern and west-central OKLAHOMA from mid-June to late July. Counts of 20-60 per 100 terminals were commonly reported. Numbers reached 100-500 per 100 terminals in river bottom fields in Washita County in late June.

TOBACCO

DISEASES

Very abnormal rainy, humid weather during August produced conditions needed for an outbreak of BLUE MOLD (Peronospora tabacina) in KENTUCKY. This fungal pathogen is occasionally observed in tobacco plant beds during the spring, but normally fails to harm plants in the field due to a lack of moisture. In 1979, however, the disease could be found in a majority of the tobacco fields throughout the State and was estimated to have reduced yields by up to 10%.

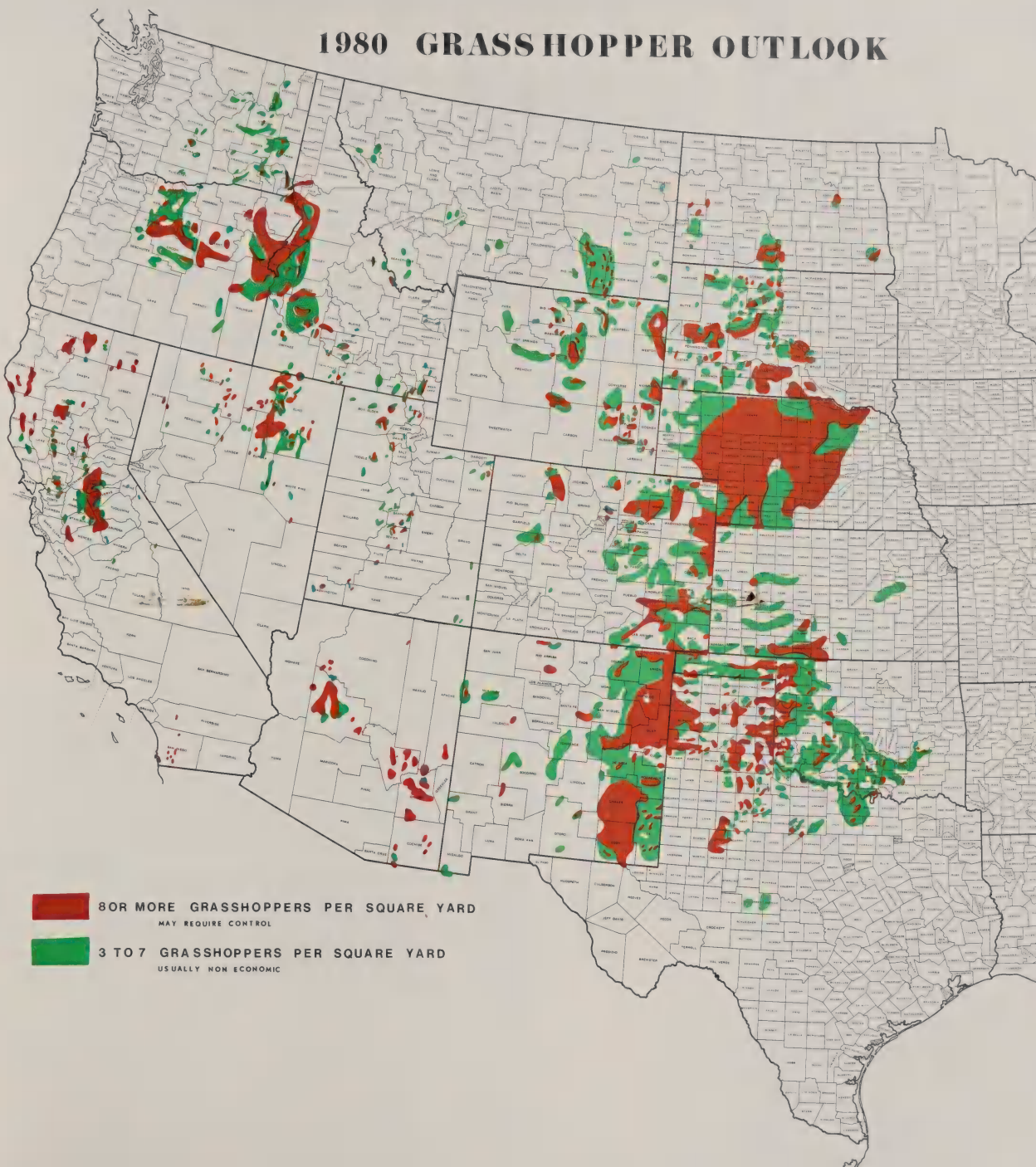
For POTATO VIRUS Y in FLORIDA, see GREEN PEACH APHID (Myzus persicae), page 117, this issue.

INSECTS

TOBACCO BUDWORM (Heliothis virescens) populations infesting untreated tobacco in FLORIDA were the smallest observed since 1955, causing 50% of the losses caused by insects. Infestations in SOUTH CAROLINA caused about 1.5% yield loss to tobacco in 1979, down from 5% in 1978. Control costs averaged about \$9 per hectare for the season.

Tobacco budworm infestations on tobacco in NORTH CAROLINA escalated May 11-18 in the southern Coastal Plain as indicated by the weekly scouting of about 930 ha in Bladen, Lenoir, Martin, Washington, and Sampson Counties. The population

1980 GRASSHOPPER OUTLOOK



UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
Plant Protection and Quarantine Programs

TO COOPERATORS:

This map is based upon the results of cooperative grasshopper adult surveys made on rangeland during the late Summer and Fall of 1979. The survey reveals where and how many grasshoppers infest rangeland areas, and indicates the potential severity of the infestations for 1980.

Because of the unknown climactic and complex biotic factors ahead, the interpretation of this data is difficult in terms of predicting the precise location of and/or the need for control in 1980. Nymphaal surveys made on rangeland in the Spring of 1980 will determine populations densities and indicate more exactly where grasshopper control may be needed. Detailed information concerning the grasshopper problem in specific areas can be obtained from State pest control officials, county agents and Plant Protection and Quarantine personnel.

RANGELAND GRASSHOPPER INFESTATIONS
ACREAGE BY REGIONS, FALL 1979
(Areas shown in red)

REGION AND STATE	LANDOWNERSHIP--ACRES		TOTAL ACRES	REGION AND STATE	LANDOWNERSHIP--ACRES		TOTAL ACRES
	Private and State	Public Domain			Private and State	Public Domain	
WESTERN				Total Western Region	7,463,180	3,754,050	11,217,230
Arizona	280,000	565,000	845,000	SOUTHCENTRAL			
California	257,220	26,600	283,820	Kansas	475,000	0	475,000
Colorado	1,783,400	101,500	1,884,900	Nebraska	6,205,000	390,000	6,595,000
Idaho	380,000	517,200	897,200	N. Mexico	4,950,000	1,326,000	6,276,000
Montana	175,840	211,860	387,700	Oklahoma	1,129,000	10,000	1,139,000
Nevada	344,820	337,430	682,250	Texas	6,443,647	48,757	6,492,404
North Dakota	94,500	91,000	185,500	Total Southcen- tral Region	19,202,647	1,774,757	20,977,404
South Dakota	1,249,890	518,720	1,768,610				
Oregon	1,099,590	1,047,820	2,147,410				
Utah	58,900	13,020	71,920				
Washington	95,830	10,800	106,630				
Wyoming	1,643,190	313,100	1,956,290	GRAND TOTAL	26,665,827	5,528,807	32,194,634

The survey was planned and performed by Plant Protection and Quarantine personnel in cooperation with various State Agencies concerned.

of tobacco budworm peaked June 1-8 with the percent of fields at threshold ranging from 5% in the Piedmont counties to 25% in the central and southern coastal counties. The number of fields reaching threshold began declining June 18-21 due to a combination of insecticides and the increase in fields reaching the flowering stage. During 1978, the population peaked June 16-28 with 11% of the southern Coastal Plain fields reaching threshold.

BLACK CUTWORM (*Agrotis ipsilon*) damage in KENTUCKY was probably slightly less than in 1978; growers are, however, estimated to have treated about the same amount of tobacco hectares as in 1978. An estimated 10-15% of the beds and 5-10% of the fields were treated in 1979.

Populations of NOCTUID MOTHS (*Heliothis* spp.) were light to moderate with an estimated 40-45% of the tobacco hectares being treated in 1979.

Populations of TOBACCO HORNWORM (*Manduca sexta*) in FLORIDA infesting untreated tobacco were the smallest observed since 1955 causing 21% of the losses caused by insects.

Tobacco hornworms caused only light (about 0.5%) damage to tobacco in SOUTH CAROLINA, with control costs being only about \$3 per hectare (down from about \$10 per hectare in 1978). The percent of tobacco fields in NORTH CAROLINA at threshold for tobacco hornworm remained 5% or less in all surveyed areas except the Lenoir County area. Of the 345 to 381 fields (about 800 ha) sampled weekly in Lenoir County during the period June 18 to August 6, 8-22% of the fields were at threshold. During 1978, peak infestation occurred August 4-18 with about 27% of the central and northern Coastal Plain fields at threshold. Infestation levels in the southern Coastal Plain during 1979 were similar to 1978 with about 5% of the fields requiring controls.

Populations of SPHINGID MOTHS (*Manduca* spp.) on tobacco were considered to be light to moderate in KENTUCKY, but the percentage of hectares treated in 1979 was estimated to be around 50%, above the 30% estimated to have been treated in 1978. Heavy rains damaged tobacco throughout much of the State during late July due to localized flooding. Several fields were totally destroyed and many others had drowned out patches. Yield losses were estimated at 10-15% of the total crop.

TOBACCO FLEA BEETLE (*Epitrix hirtipennis*) numbers were light to moderate in KENTUCKY. The percentage of the tobacco hectares treated during 1979 is estimated to have been about 40%. This is above the 20% estimated to have been treated for tobacco flea beetle in 1978 but below the 60% estimated to have been treated in 1977. Damage was light to tobacco, about 0.5%, in SOUTH CAROLINA. Control costs averaged about \$3.75 per hectare (down from about \$7.25 per hectare in 1978).

Damage to tobacco by TOBACCO WIREWORM (*Conoderus vespertinus*) in SOUTH CAROLINA was up slightly in 1979 to about 0.5%. Control costs rose to about \$4 per hectare.

GREEN PEACH APHID (*Myzus persicae*) in FLORIDA occurred earlier than in 1978, and populations on tobacco were heavier but within the normal range of 100-200 per plant at Live Oak. There was an increase of plants infected by POTATO VIRUS Y; however, the disease was moderate and damage was light.

A slow but gradual population increase of green peach aphids on tobacco in NORTH CAROLINA was detected May 25 to June 6 in and south of Lenoir, Wayne, and Johnston Counties. Cool temperatures during late June appeared to have stimulated rapid population development. In the southern Coastal Plain, 17% of 376 fields scouted, needed an insecticide treatment July 2 compared with 4% June 16. The population in the northern Coastal Plain reached threshold in about 11% of the fields June 25-28. Piedmont producers experienced about 4% of their fields reaching threshold July 6-12. Aphids continued to be the major insect pest of tobacco in the Coastal Plain from July 6 until harvesting began. Aphids have traditionally not been a major pest of tobacco; however, it has been considered a major tobacco pest since 1976.

Noticeable green peach aphid populations began to appear in tobacco during early July in KENTUCKY and populations increased very rapidly until early August when a fungal disease rapidly decreased population levels. Aphids were probably the worst insect pest on tobacco during 1979 and if it had not been for the disease epizootic probably would have caused even more damage. It is estimated that about 50% of the tobacco hectares was treated during 1979, an increase over 1977 and 1978 when 35% and 15-20% were estimated to have been treated, respectively.

Fairly high numbers of GRASSHOPPERS in KENTUCKY in the grassy areas surrounding tobacco fields early in the season indicated potentially serious damage to the tobacco. Abnormally heavy rainfall in late July and early August kept the grass in the borders green and lush and thereby, kept the grasshoppers out of the tobacco. An estimated 25-30% of the tobacco hectares was treated during 1979.

MISCELLANEOUS FIELD CROPS

DISEASES

A late October survey in Langlade County, WISCONSIN, revealed that HEAD ROT (*Rhizopus* spp.) and SCLEROTINIA STEM ROT (*Sclerotinia sclerotiorum*) were present in 18 of 19 fields surveyed. These fungi affected sunflowers in that area with a combined prevalence of 47% and severity of 25%.

INSECTS

Treatment for SUNFLOWER MOTH (*Homoeosoma electellum*) in WASHINGTON was applied at least once to 90% of the sunflower hectares in Walla Walla County and twice to 60% of the hectares. Populations were spotty in SOUTH CAROLINA but a few sunflower fields were destroyed by 100% infestations. This pest will probably be an increasing problem as the hectares expand.

EUROPEAN CORN BORER (*Ostrinia nubilalis*) in SOUTH CAROLINA heavily damaged the second sunflower crop; some fields had 3 larvae per head.

A PYRALID MOTH (*Fumibotys fumalis*) reached serious economic levels in peppermint in nearly all major mint-growing regions of WASHINGTON. It was recorded in Grant County for the first time this year, and economic damage was reported in the Royal City area of Grant County. Many fields averaged 65 to 110 borers per 0.09 sq m, resulting in severe rhizome or root injury. Because of the injury, crop winterkill is expected to be heavy. Both cultural and chemical controls used to date have not proven totally satisfactory. Spearmint types were not significantly affected by the pest.

Numbers of REDBACKED CUTWORM (Euxoa ochrogaster) and other Euxoa species in OREGON escalated sharply. Damage to peppermint in the central area was the worst since 1973. Larval populations ranging up to 15 per 100 sq cm were found in the Prineville, Crook County, and Madras and Culver City, Jefferson County, areas. Treatable levels were met or exceeded on 30% of the fields monitored under an ongoing integrated pest management project. An estimated 35-40% of the 9,712.5 hectares in production was treated. A few established fields were considered complete losses.

As in 1978, CORN EARWORM (Heliothis zea) in SOUTH CAROLINA caused the second sunflower crop to have much higher damage levels.

VARIEGATED CUTWORM (Peridroma saucia) population buildup on peppermint in OREGON in the Willamette Valley was delayed until about harvest due to severe damage of the fields by cold weather in January. An estimated one-quarter of the mint surveyed in the Willamette Valley was treated for control. Both ALFALFA LOOPER (Autographa californica) and CABBAGE LOOPER (Trichoplusia ni) were very light in all mint-production areas in the State.

The first observance of DINGY CUTWORM (Feltia ducens) damage in MINNESOTA was in Grant County on June 8. Larvae were 13-19 mm long and averaged less than 1 per 0.09 sq m. Estimated damage was about 1%. About 730 ha of sunflowers were treated at a cost of \$15,000.

SUNFLOWER BEETLE (Zygogramma exclamationis) appeared in late June in the north-west district of MINNESOTA. About 20% leaf feeding was observed. By July 17, Marshall, Polk, Pennington, and Red Lake Counties had an average of 6 beetles per 100 sunflower plants in the 8-10 leaf stage. Larvae averaged 18 per plant with leaf feeding up to 30% in some fields. About 4,000 ha were treated, perhaps not justified economically, at an estimated cost of \$85,000.

A CHRYSOMELID BEETLE (Longitarsus waterhousi) in OREGON increased in peppermint plantings in the Willamette Valley and the central area. Up to 39 adults per sweep were recorded in Jefferson and Crook Counties in early July.

Heavy infestations of a WEEVIL (Otiorhynchus sp.) were reported in hop yards with 10-50 larvae per crown in WASHINGTON. Up to 300 ha experienced severe damage which resulted in their being disked out.

A few CARROT BEETLE (Bothynus gibbosus) infestations were seen in SOUTH CAROLINA on the first crop of sunflowers with up to 10% stand loss in affected fields.

A CECIDOMYIID MIDGE (Contarinia schulzi) was reported infesting 404.7 ha of sunflowers in southwestern Marshall County, MINNESOTA, during the week of July 9. Eggs ranged from 500 to 600 per head. Midge damage was reported from Ortonville, Big Stone County, to Marshall County. Economic injury in sunflowers grown for seed occurred in the Warren area of Marshall County. Over 20,000 ha were treated which represented about 3% of the total sunflower hectares of 557,700. The cost of treatment at the rate of \$8.50 per 0.4 ha would amount to over \$340,000.

Damaging HOP APHID (Phorodon humuli) populations occurred in some hop yards of central WASHINGTON. Two 8.1-ha yards had serious yield reductions of up to 33% and the remaining yield was classified as cull.

SPIDER MITES, principally TWOSPOTTED SPIDER MITE (*Tetranychus urticae*), continued to be a chronic problem on peppermint grown in the Madras and Prineville areas of central OREGON and in the Grants Pass area, Josephine County. Economic infestations also occurred in the mid-Willamette Valley and appeared to be on the increase west of the Cascade Mountains. In Jefferson, Crook, and Josephine Counties a treatment threshold of 5-10 mites per leaf (as a field average) was exceeded on all monitored fields (1,012 ha). Ten percent of the 728.4 ha surveyed in central Oregon required 2 applications of miticides. Westside, 52% of 728.4 ha received a single application for control of mites and variegated cutworms.

Unusually high populations of twospotted spider mite were recorded in WASHINGTON on crown growth in hops, with 80-100 mites per leaf in untreated yards. Yields in some yards were reduced by 25%.

PESTS NOT KNOWN TO OCCUR IN THE UNITED STATES
Or
Of Limited Distribution

SENN PEST

Eurygaster integriceps Puton
Hemiptera: Pentatomidae

ECONOMIC IMPORTANCE

This pentatomid is one of the most destructive pests of grain in the Near East, causing more grain damage in Iraq than grasshoppers. The entire wheat crop in Iran has been lost in some seasons. Some areas of the Soviet Union have reported heavy damage. Infestations were reported in Turkey in 1956 on about 1.5 million hectares of cereals (Logothetis 1957, Arkhangel'skii 1940).



GENERAL DISTRIBUTION OF EURYGASTER INTEGRICEPS

Afghanistan, Bulgaria, Cyprus, Greece (including Crete), Iran, Iraq, Israel, Jordan, Lebanon, Pakistan, southern Soviet Union, Syria, and Turkey (Gentry 1965, Logothetis 1957).

HOSTS

Hosts include barley, clover, corn, flax, millet, oats, rye, sorghum, spurge, sunflower, thistle, and wheat.

CHARACTERS

ADULT - Length 11-12 mm. Body convex oval in dorsal aspect, yellowish brown with small black spots usually in pattern of linear markings. Head triangular, rounded in front, broader than long with 2 longitudinal parallel grooves. Scutellum extends beyond abdomen and almost covers it. Scutellum with cal-loused yellow line along two-thirds of midline, base with 2 raised yellow spots. Abdominal dorsal margins exposed with alternating light and dark areas. Body ventral surface pale except for black spot at apex of scent gland canal. Tarsi 3 segmented, second segment no longer than half length of distal segment. Antennae 5 segmented, distal 2, darker.



ushman '76

EURYGASTER INTEGRICEPS

NYMPH - Color similar to adult, with 2 or 3 paired black dots midway between lateral margin and midline of abdomen.

CHARACTERISTIC DAMAGE

Adult feeding prevents tillering of host plants. Main damage to grain is two-fold. Adults feed on stems of young plants, making the central leaf yellow and withered. Later, adults and nymphs feed on the kernels. The former damage is often the cause of 25% or more stand loss in nonirrigated fields; 2.4-3.6 insects per square meter feeding on kernels can cause total loss of the crop. Enzymes introduced into the kernel during feeding greatly reduce the yield, the percent of germination, and the baking quality of flour. Although variable throughout the Near East, losses generally amount to 25% of the crop (Lodos 1954, Marushev and Grivanov 1938).

DETECTION NOTES

1. There are very few pentatomids that feed on wheat or any other small grains except rice in the United States. Any member of this family found on or near small grains should be turned in for identification as a suspect. There are several species besides the Senn pest which feed on small grains in foreign countries, any of which would be of great interest if found in this country (Metcalfe et al. 1962).

2. A sweep net is used to survey for insects on small grains early in the season, and in some cases a 6 x 30 binoculars can be used to observe small grain insects to note their presence without disturbing them in late season fields (U.S. Dept. of Agric. 1969).

BIOLOGY

The life cycle consists of 5 phases, 3 active and 2 inactive. There is only 1 generation per year.

The first active phase begins in the spring when nymphs reach the second instar. By late June nearly all of the new generation reach the adult stage. Young adults feed for a few days, and then fly in large groups from grain fields to summer-autumn aestivation quarters, where the first inactive period is passed. Migration to higher altitudes occurs during the search for suitable sites for aestivation. Temperature and humidity preferences of the adults condition these migrations for aestivation and hibernation.

The second active phase occurs in autumn, when adults move from aestivation sites to hibernation quarters. Adults must first develop a fat body and, to some extent, can be induced to migrate by temperature and humidity. The critical low temperature varies widely, depending on the amount of fat body and other factors. Hibernation constitutes the second inactive phase. Adults overwinter in soil around grass roots in mountain areas and under litter in valleys. The soil penetration depth depends on the cold intensity.

The third active phase begins with a resumption of activity in the spring when the overwintered adults feed, mate, and oviposit, terminating with the death of overwintered adults. Migration to the field begins after the snow melts. Overwintered adults leave the ground and descend in swarms from the mountains to the plains when temperatures in the litter reach 21-22°C. The flight extends over several weeks, covering distances of 25-30 km in a single flight. When air temperature reaches 20°C and humidity 60 percent, feeding begins on stems of young plants. The adults fly and mate at 24.5°C, are most active at 25-32°C and become torpid below 7°C.

Adults settle in fields of young plants, subsequently feed, mate, and oviposit. Females lay 70-80 eggs each, in clusters of 5-30 on the leaves, stalks or heads of wheat, and nongrassy weeds. The potential fecundity of females is over 250 eggs. But the number deposited depends on the amount of fat body, nutrition, and weather. Hatching begins in mid-April, and new generation adults appear during June (Peredel'skii 1952).

Natural Enemies: Egg parasites include: An encyrtid wasp, Schedius telenomicida (Vasil'ev); scelionid wasps, Dissolcus rufiventris (Mayr), Hadronotus pedester (Kieff.), Microphanurus semistriatus (Nees), Microphanurus vassilievi (Mayr), Telenomus sokolowi Mayr, Trissolcus (Phanurus) politus (Thoms.), Trissolcus simoni (Mayr); and a mite Balaustium miniatum (Herm.). Adult parasites include tachinid flies, Cistogaster globosa (F.), Clytiomyia helluo (F.), Helomyia lateralis (Mg.), Phasia crassipennis (F.), and Phasia rostrata (Egger) (Alexandrov 1953).

REFERENCES

- Alexandrov, N. Eurygaster integriceps Put. a Varamine et ses parasites. [In Persian]. Ent. Phytop. Appl. no.5:29-41; 1947. Taken from: Rev. Appl. Entomol. Ser. A 41(1):28; 1953.
- Arkhangel'skii, N.N. A study upon the injurious corn bug Eurygaster integriceps Put. in order to elaborate control measures against it. In: Summary of the scientific research work of the Institute of Plant Protection for the year 1939 [In Russian]. Leningrad, Lenin Acad. Agric. Sci.; 1940. Taken from: Rev. Appl. Entomol. Ser. A 29(11):574-575; 1940.
- Gentry, J.W. Crop insects of northeast Africa-southwest Asia. Washington, DC: U.S. Dept. of Agric.; No. 273, January 1965. p. 33.
- Lodos, N. The bionomics and control of Eurygaster integriceps Put. Turk Yuks. Lir. nuhend. Birl. nesr. no. 18 Ankara; 1953. 57 p. Taken from: Rev. Appl. Entomol. Ser. A 42(9):277; 1954.
- Logothetis, C. The Senn pest, Eurygaster integriceps, in the near East. FAO Plant Prot. Bull. 5 (2):21-25, 1956. Taken from: Rev. Appl. Entomol. Ser. A 45(2):64; 1957.
- Marushev, A.I.; Grivanov, K.P. The effect of the injuries caused by Eurygaster integriceps Put. on the baking properties of wheat. Social. Grain Fmg no. 4 187-191 p; 1938. Taken from: Rev. Appl. Entomol. Ser. A 27(10): 554-555; 1938.
- Metcalf, C.L; Flint, W.P.; Metcalf, R.L. Destructive and useful insects. New York: McGraw-Hill; 1962. 1087 p.
- Peredel'skii, A.A. Biological foundations of the theory and practice of the control of E. integriceps. 2:89-270 p. In: Fedotov, D.M. ed; The noxious little tortoise, Eurygaster integriceps. Reports on the work of the expedition to central Asia for the study of the noxious little tortoise organized by the A.N. Severtzov Institute of Evolutionary Morphology. [In Russian] Moscow: Akad. Nauk USSR: 1947, Vol.1, 272 p. Vol.2, 271 p. Taken from: Rev. Appl. Entomol. Ser. A 40(10):307-311; 1952.
- U.S. Dept. of Agric. Survey methods for some economic insects. Agric. Res. Ser. 81-31:36-37; May 1969.

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

POSTAGE
U.S. AIR MAIL

NATIONAL AGRICULTURAL LIBRARY



1023169294

34/033NIDLANESR R1 CPR-0001
~~DR. IVAN W. KIRK~~ ASST AD
USDA SER SR **LIBRARY**
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



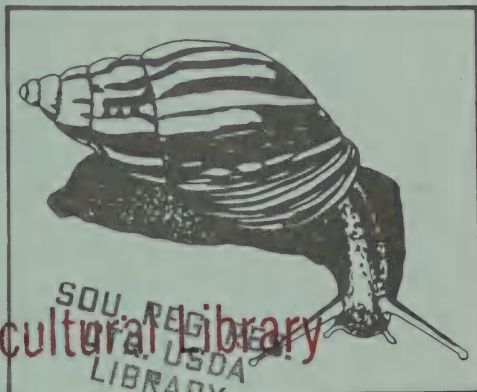
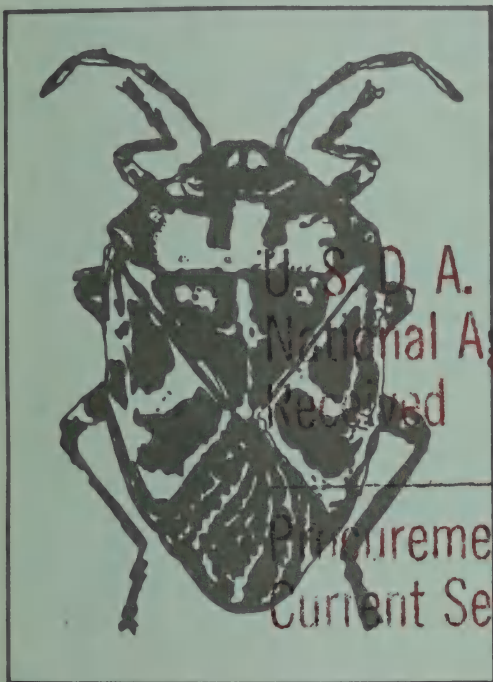
SB 823
253

4/9

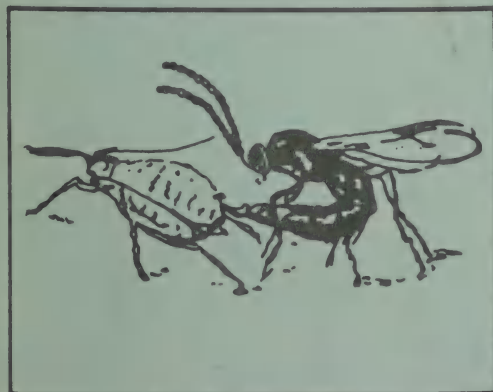
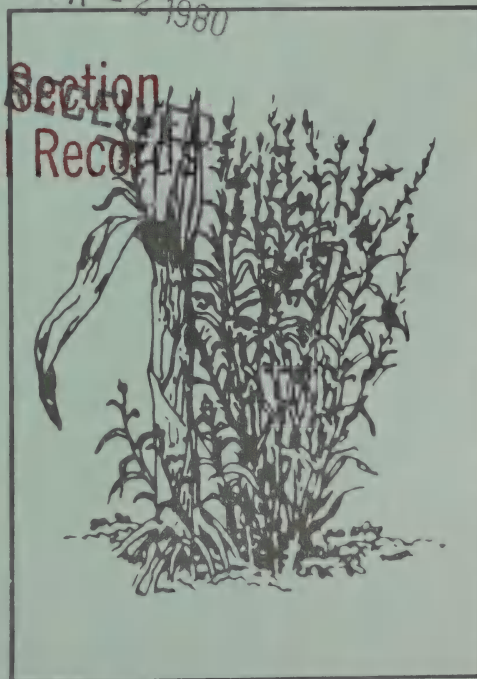
Cooperative PLANT PEST REPORT

U.S. March 7, 1980
DEPARTMENT
OF AGRICULTURE Vol. 5
No. 6

Animal
and Plant
Health
Inspection
Service



APR - 2 1980



U.S.D.A.
National Agricultural Library
Received

Procurement Section
Current Serial Records

This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

WINTER GRAIN MITE up to 1,000 per 0.3 row m in spots in replanted wheat fields in west-central Oklahoma. (p. 128).

SOUTHERN MOLE CRICKET tunneling damage in turf widespread in Florida peninsula. (p. 128).

Treatment for ARMY CUTWORM in few west-central alfalfa fields in Oklahoma. (p. 128).

Detection

A TENUIPALPID MITE is new for Florida. (p. 129).

New county records on page 138.

Some First Occurrences of the Season

ENGLISH GRAIN APHID, ALFALFA WEEVIL larvae, and HONEY BEE in Oklahoma.

Special Reports

Summary of Pest Conditions in the United States - 1979

Potatoes, Tomatoes, Peppers. (p. 132-133).

Beans and Peas. (p. 134).

Cole Crops. (p. 135-136).

Cucurbits. (p. 136).

General Vegetables. (p. 136-138)

Reports in this issue are for the week ending February 29 unless otherwise indicated.

CONTENTS

Small Grains Insects.....	127	Ornamentals Insects.....	129
Turf, Pastures, Rangeland Insects.....	128	Forest and Shade Trees Insects.....	129
Forage Legumes Insects.....	128	Man and Animals Insects.....	129
Deciduous Fruits and Nuts Insects.....	129	Stored Products Insects.....	130
Beneficial Organisms and Their Enemies Insects.....	130		
Federal and State Programs Insects.....	130		
Hawaii Pest Report.....	130		
Corrections.....	138		
Light Trap Collections.....	130		
Detection.....	138		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	131		
Summary of Pest Conditions in the United States - 1979			
Potatoes, Tomatoes, Peppers Diseases.....	132		
Insects.....	132		
Beans and Peas Diseases.....	134		
Insects.....	134		
Cole Crops Diseases.....	135		
Insects.....	135		
Cucurbits Diseases.....	136		
Insects.....	136		
General Vegetables Diseases.....	136		
Insects.....	137		

SMALL GRAINS

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= larvae per 0.3 row m (unless stated otherwise) of wheat in number of fields (f), if given, week ending February 22: C> Grady= 1-3 in 20f, SW> Caddo= averaged 3 in Apache area, WC> Washita= 1 in 1f, and NC> Noble, Kay, Garfield, and Grant= light, 1 or 2 per 3.0 row m in all 35f. Currently: NC> Major, Alfalfa, Garfield, Grant, Kay, and Noble= 0-5, heavier mostly in early planted, ungrazed fields; C> Kingfisher and WC> Blaine= 0-4 per 3.0 row m; Washita= generally light; and SW> Kiowa and Jackson= 0-6 per 3.0 row m. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - TEXAS - Counts per 0.3 row m of small grains, February 18 (E.P. Boring, III):

District> County	Counts
Rolling Plains Area	light in most fields
Rolling Plains Area	moderate to heavy in some fields
Northern Low Plains> Foard	17-60
Northern Low Plains> Wichita	5-81
Northern Low Plains> Wilbarger	increasing
Southern Low Plains> Baylor	increasing

OKLAHOMA - District> County= greenbugs per 0.3 row m (unless stated otherwise) of wheat in number of fields (f), if given, week ending February 22: C> Grady= uniformly 100-300 in 4f, 500-600 per clump in spots of older plants in 5 replanted fields, and 0-50 in 11f; SW> Jackson and Greer= 0-15 in 12f; and NC> Noble, Kay, Garfield, and Grant= 0-85 in 35f. Predators occasional in all areas, no parasites seen. Currently: NC> Major, Alfalfa, and Garfield= 20-75; Grant, Kay, and Noble= 25-125; C> Kingfisher and WC> Blaine= 5-75; Washita, Custer, and Beckham= generally light; SW> Kiowa and Jackson= 0-40; and Panhandle> Texas= 0-5. (D.C. Arnold).

AN APHID (*Rhopalosiphum padi*) - OKLAHOMA - District> County= counts per 0.3 row m of wheat week ending February 22: C> Grady= 0-300, SW> Jackson and Greer= 0-10, and NC> Noble, Kay, Garfield, and Grant= 10-35. Currently: NC> Major, Alfalfa, Garfield, Grant, Kay, and Noble= 15-50; C> Kingfisher and WC> Blaine= 5-20; Washita and Custer= generally light; SW> Kiowa and Jackson= 0-10, and Panhandle> Texas= 0-1. (D.C. Arnold).

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - OKLAHOMA - First of season. District> County= status on wheat: SW> Jackson= occasional aphid in 1 field. (D.C. Arnold).

WINTER GRAIN MITE (*Pentaleus major*) - TEXAS - Counts per 0.3 row m of small grains (E.P. Boring, III):

District> County	Counts
February 11:	
Southern Low Plains> Baylor	0-6
Cross Timbers> Archer	0-25
Northern Low Plains> Foard	0-25
Northern Low Plains> Wilbarger	up to 45

<u>District> County</u>	<u>Counts</u>
Cross Timbers> Young	light
February 18:	
Northern Low Plains> Foard	up to 20
Northern Low Plains> Wilbarger	up to 5

OKLAHOMA - District> County= winter grain mite per 0.3 row m of wheat week ending February 22: NC> Noble, Kay, Garfield, and Grant= 0-50 and SW> Jackson and Greer= 0-2. Currently: WC> Washita, Custer, and Blaine= up to 1,000 in older clumps in replanted fields, damage heavy in spots in some fields; NC> Major and Garfield= 10-500; Alfalfa= 20-100; and Grant, Kay, and Noble= 20-175. (D.C. Arnold).

TURF, PASTURES, RANGELAND

INSECTS

SOUTHERN MOLE CRICKET (Scapteriscus acletus) - FLORIDA - Area> status: Peninsula> adults common, active in mating and dispersal flights. Tunneling damaged turf, especially bermudagrass, varieties of golf course grasses, lawns, and bahiagrass pastures and turf. Damage widespread from Atlantic to Gulf Coasts. (J. Reinert).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - OKLAHOMA - First larvae of season. District> County= status on alfalfa: SC> Stephens= eggs 125-150 per 0.09 sq m February 18, Stephens and C> Grady= larvae infested 3-5% of terminals February 28. (D.C. Arnold).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Maricopa= larvae 400-480 and adults 5-10, Pinal= larvae 2-620, and SW> Yuma= larvae 180-2,100 and adults 40. (T. Fenn et al.).

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= counts per 0.3 row m of fall-planted alfalfa week ending February 22: C> Grady= 0-2 in fields. Current counts per 0.09 sq m (unless stated otherwise) of alfalfa: Grady= averaged 0.8 in 1 field; WC> Washita= averaged 5 per 0.3 row m in 1 fall-seeded field, field treated, light in established fields in area; SC> Stephens= 1.2-5.2 in established alfalfa, 2 of 5 fields may need treatment; and Garvin= 0-0.5 in 4 fields. (D.C. Arnold).

ALFALFA CATERPILLAR (Colias eurytheme) - ARIZONA - District> County= larvae per 100 sweeps of alfalfa: C> Pinal= 720. (T. Fenn et al.).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 1,800-5,000. (T. Fenn et al.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= adults per 100 sweeps of alfalfa: SW> Yuma= 200. (T. Fenn et al.).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - District> County= adults per 100 sweeps of alfalfa: C> Pinal= 11-100. (T. Fenn et al.).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Pinal= 2 and 12-240. (T. Fenn et al.).

DECIDUOUS FRUITS AND NUTS

INSECTS

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - TEXAS - District> County= status on peach February 24: East Texas, South> Brazos= hatching. (J.A. Jackman).

ORNAMENTALS

INSECTS

A DIASPIDOID SCALE (*Comstockiella sabalis*) - FLORIDA - New county record. District> County= collection data from unknown palm: NW> Bay= adults moderately infested leaves at motel at Panama City, January 31, 1980, collected by D. Reese, determined by A.B. Hamon. Palm at property 1+ years. (D. Reese).

A TENUIPALPID MITE (*Pentamerismus erythreus*) - FLORIDA - New State record. District> County= collection data from *Juniperus* sp. (a juniper) plant: C> Pinellas= at residence in St. Petersburg area, July 13, 1952, collected and determined by E.W. Baker. (E.W. Baker).

FOREST AND SHADE TREES

INSECTS

SPRING CANKERWORM (*Paleacrita vernata*) - TEXAS - District> County= status: East Texas, South> Brazos= common in traps February 17, females also active February 24. J.A. Jackman).

MAN AND ANIMALS

INSECTS

FACE FLY (*Musca autumnalis*) - SOUTH CAROLINA - New county records collected from cattle in pasture June 12 to August 21, 1979, by M.E. Gilreath, and determined by H.C.W. Walther. (J.B. Kissam).

District> County	City	Collection date
NC> Chester	Chester	Jun 12
NC> Lancaster	Lancaster	Jun 12
NC> York	Rock Hill	Jun 12
NC> Fairfield	Winnsboro	Jul 24
WC> Edgefield	Edgefield	Jul 11
WC> Abbeville	Abbeville	Jul 12
WC> Mc Cormick	Mc Cormick	Jul 12
WC> Saluda	Saluda	Jul 12
WC> Newberry	Whitmire (24 km north of Newberry)	Aug 9
NW> Union	Jonesville (13 km north of Union)	Jul 26
NW> Anderson	Anderson	Jul 31
E> Chesterfield	Mount Croghan (11 km west of Chesterfield)	Aug 21

STORED PRODUCTS

INSECTS

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Area> status: NE> adults below 1979 levels in spot checks of 5 farm corn storage sites. Sustained cold temperatures inhibited population expansion to date. Population expected to expand rapidly when daily temperatures rise above 16°C for 15+ successive days. (T. Hunt).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

CONVERGENT LADY BEETLE (Hippodamia convergens) - OKLAHOMA - District> County= adults per 0.3 row m (unless stated otherwise) of wheat: NC> Major, Alfalfa, Garfield, Grant, Kay, and Noble= 0-2; and WC> Blaine, Custer, Washita, C> Kingfisher, SW> Kiowa, and Jackson= 0-4 per 3.0 row m. (D.C. Arnold).

HONEY BEE (Apis mellifera) - OKLAHOMA - First of season. District> County= status on early blooming flowers: C> Payne= active. (D.C. Arnold).

FEDERAL AND STATE PROGRAMS

INSECTS

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - New county record. District> County= collection data: NC> Chester= adults collected along National Interstate Highway 77 near Rossville, about 11 km west of Great Falls, by J.L. King, Jr., determined by J.L. McKee and R.F. Bollinger. This mound is outside quarantined area. (J.P. Mikell, H.B. Jackson).

SCREW WORM (Cochliomyia hominivorax) - No cases reported from continental United States, February 10-23. Total of 5 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 199 cases reported in Mexico south of eradication zone. Number of sterile flies released this period totaled 18,427,800, all in Texas. Total of 437,405,320 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

Beneficial Insects - GORSE SEED WEEVIL (Apion ulicis) - Island= status on Ulex europaeus (gorse) week ending February 8: Maui= infestations moderate on 4.0 ha at Olinda, 1,067-m elevation. Infested about 23% of seed pods compared with 2% in early 1974, and 1-7% in the past. Weevil first released at Olinda in 1949 in attempt to control this noxious weed. (N. Miyahira).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 2/18-24, BL - ARMYWORM (Pseudaletia unipuncta) 1, BLACK CUTWORM (Agrotis ipsilon) 2. CALIFORNIA - Bellota, 2/24, BL - Armyworm 1. Manteca, 2/24, temp. 7.8-20°C, BL - GRANULATE CUTWORM (Feltia subterranea) 2, VARIEGATED CUTWORM (Peridroma saucia) 3. FLORIDA - Gainesville, 2/21-27, BL - Black cutworm 1, granulate cutworm 7.

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

	Life Stage	Host	Probable Origin	Port of Entry	Officer	Destination
<u>Anthaxia</u> sp. a buprestid beetle Det. J.M. Kingsolver	larval adult	in wood crates with machinery parts	Italy	Savannah	J. Neal	NJ
<u>Crematogaster</u> sp. an ant Det. D.R. Smith	adult	in dunnage	Italy	Houston	C. Brown	TX
<u>Lasioptera arundinis</u> Schiner a cecidomyiid midge Det. R.J. Gagne	larval	in reed mats from cargo	Hungary	Port Everglades	M. Connor	FL
<u>Lipara lucens</u> Meigen a chloropid fly Det. C.W. Sabrosky	larval pupal	in reed mats from cargo	Hungary	Port Everglades	A. Modery	FL
<u>Lyctus simplex</u> Reitter a lyctid beetle Det. T.J. Spilman	adult	in cedar wood boards from cargo	Paraguay	San Juan	W. Yates	PR
<u>Neoterмес</u> sp. a termite Det. D.A. Nickle	adult	in wood crates with machinery	Peru	Charlotte	M. Simon	NC
<u>Osmilia flavolineata</u> (De Geer) a grasshopper Det. D.A. Nickle	adult	with cages from baggage	Surinam	San Francisco	A. Lopez	CA
<u>Polygraphus polygraphus</u> (Linnaeus) a scolytid beetle Det. D.M. Anderson	larval adult	in wood pallets with automobile transmissions	France	Savannah	J. Neal	GA

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(Continued from page 120)

POTATOES, TOMATOES, PEPPERS

DISEASES

POTATO/TOMATO LATE BLIGHT (Phytophthora infestans) in KANSAS was present in June in the Kansas River Valley between Manhattan and Lawrence.

A LEAF BLIGHT (Cladosporium sp.) in KANSAS was affecting greenhouse tomatoes in Harvey County in May and TOMATO LEAF BLIGHT (Septoria lycopersici) was widespread across the State during the summer.

VERTICILLIUM WILT (Verticillium albo-atrum) in NEW MEXICO affected an average of 1-2% of the chili crop at Hatch and Mesilla Valleys, Dona Ana County.

BET CURLY TOP VIRUS in NEW MEXICO affected an average of 5-10% of the chili and tomato plantings in Mesilla and Hatch Valleys, Dona Ana County, July through harvest. Isolated fields had as high as 70% of the plants showing symptoms in southern Dona Ana County.

A ROOT-KNOT NEMATODE (Meloidogyne sp.) and POTATO BLACK SCURF (Rhizoctonia solani) were light on tubers of red potatoes in the San Joaquin Valley District of CALIFORNIA in April. Low level infections in NEW MEXICO occurred in chili and tomato fields throughout Mesilla and Hatch Valleys, Dona Ana County.

INSECTS

Populations of COLORADO POTATO BEETLE (Leptinotarsa decemlineata) were generally low this year in WASHINGTON. After many years of trace infestations in irrigated potatoes in the Central Sands area of WISCONSIN, infestations increased in intensity and distribution in 1979. The first infestation in many years was observed on potatoes in the Antigo area.

Colorado potato beetle continued to be a problem particularly in potatoes and tomatoes in MICHIGAN. Although insecticide resistance is a serious problem in the eastern United States, chemical controls continue to be effective in Michigan and actual crop losses were minimal (less than 1%). Costs of control to the Michigan potato industry are about \$2 to 3 million per year, not including the costs of application.

BANDED CUCUMBER BEETLE (Diabrotica balteata) was more serious on Irish potato tubers during the spring in the Homestead, Dade County, area of FLORIDA than in recent years.

PEPPER WEEVIL (Anthonomus eugenii) in FLORIDA caused fairly heavy damage to some commercial pepper fields at Immokalee, Collier County, during the spring. Field infestations were detected in 6 Coastal Plain counties of NORTH CAROLINA, 5 locations in Sampson County alone. In most cases, pepper transplants from out-of-State were involved. Overwintering is not known to occur in North Carolina.

CORN EARWORM (Heliothis zea) and TOBACCO BUDWORM (Heliothis virescens) increased on fruit in the Ruskin area of FLORIDA, requiring more treatments for the Heliothis pest-group than in previous years. Corn earworm has emerged as a serious pest of tomato fruits the last 2 years at Homestead; not previously a pest in this area. Populations last spring were a little higher than the previous spring.

SOUTHERN ARMYWORM (Spodoptera eridania) in FLORIDA continued to be a moderately serious problem on the spring crop of tomatoes at Homestead.

EUROPEAN CORN BORER (Ostrinia nubilalis) larvae in KENTUCKY were light to moderate on peppers during 1979. It is estimated that 25% of the pepper hectares was treated with a foliar insecticide. This amount is equal to that treated in 1978 but substantially less than the amount treated in 1977. Infestations damaged potatoes in MICHIGAN. Although first generation population numbers were very high, the second generation (the most damaging one in vegetables) was much less abundant than in 1978 and damage was much less severe.

There were low numbers of POTATO TUBERWORM (Phthorimaea operculella) in FLORIDA on potatoes in the Hastings area. This was probably due to adequate moisture in the fields preventing soil cracking.

TOMATO PINWORM (Keiferia lycopersicella) larvae in CALIFORNIA were active on tomatoes during September in the San Joaquin Valley District with 3 larvae per leaf. This species in FLORIDA continued to be a moderately serious pest of the spring crop of tomatoes at Homestead, Dade County. Tomato pinworm was not as bad in 1979 and was not a pest of major concern to tomato growers in the Ruskin area, southern Hillsborough and Manatee Counties.

VEGETABLE LEAFMINER (Liriomyza sativae) in FLORIDA was present in the spring and fall tomato seasons at Ruskin; populations were kept under control with recommended chemicals. Infestations continued to be a moderately serious problem on the spring crop at Homestead. Most tomato fields in SOUTH CAROLINA received light pressure in 1979. Some fields did reach economic threshold levels and controls were applied. General reduced pesticide applications again allowed beneficial insects to build up and aid in control of this pest.

Heavy GREEN PEACH APHID (Myzus persicae) populations and to a lesser extent POTATO APHID (Macrosiphum euphorbiae) in WASHINGTON were reported throughout the potato-growing regions of the northern Columbia Basin. Considerable virus was present in some areas, although the incidence varied from field to field. Green peach aphid was generally light on most crops this season in DELAWARE but was abundant on tomatoes in Kent and Sussex Counties during late June.

POTATO APHID (Macrosiphum euphorbiae) and TOMATO PSYLLID (Paratrioza cockerelli) combined infestation in September on tomato in the Salinas Valley District of CALIFORNIA with an average count of 30 nymphs and/or adults per leaf.

Large BEAN APHID (Aphis fabae) populations were recorded on tomatoes and other vegetables throughout western WASHINGTON. Most of the reports came from home garden vegetables. Many weed hosts were also infested.

BEANS AND PEAS

DISEASES

PEA ROOT ROTS (Aphanomyces euteiches and Fusarium solani f.sp. pisi) were found in varying degrees in 45 of 76 pea fields in WISCONSIN by the end of June. Prevalence/severity averaged 23%/13%. Cool, wet weather resulted in excellent yields despite heavy prevalence of root rot statewide.

A survey of 50 snap bean fields in Adams, Waushara, and Portage Counties, WISCONSIN, indicated that ROOT ROTS (Pythium and/or Fusarium spp.) were less severe this year in the Central Sands. Prevalence was down from the 41% level recorded last year to a 16% level this year.

INSECTS

Because of the high potential for EUROPEAN CORN BORER (Ostrinia nubilalis) larval infestations in green beans in WISCONSIN, practically all of the commercial hectares were chemically treated.

Despite heavy adult trap counts for ALFALFA LOOPER (Autographa californica) in the Walla Walla area of WASHINGTON this spring, few larvae were found in the pea fields and virtually no damage was reported. Trap counts reached a peak in late May with 86 adults per trap per night, but by late June and early July the number had decreased considerably. Warm fall weather extended adult activity late in the year and 36 adults per trap per night were trapped in mid-October.

Active SALTMARSH CATERPILLAR (Estigmene acrea) larvae in CALIFORNIA were feeding on leaves of seed beans in August in the Central Coast and Delta Districts.

The first PEA APHID (Acyrtosiphon pisum) nymphs and adults in peas in WISCONSIN were observed during the week of June 1 in the Spring Green area and Dodge County at the rate of 1 per 10 sweeps. High populations in peas were found in a few fields in Dane and Columbia Counties by mid-June and chemical treatments began.

Large populations of BEAN APHID (Aphis fabae) were recorded on tomatoes, cucurbits, beets, beans, and other vegetables throughout western WASHINGTON. Most of the reports came from home garden vegetables. Many weed hosts were also infested.

Endemic PEA APHID (Acyrtosiphon pisum) levels were present in western WASHINGTON pea fields and the majority of the hectares was treated.

GRASSHOPPERS in MICHIGAN were second to ARMYWORM (Pseudaletia unipuncta) in the area infested. Dry beans had few problems. The areas most affected were the northern Lower Peninsula and the west-central and east-central counties in the State. Damage was especially heavy in several northern Lower Peninsula counties where small fields of crops are interspersed among large areas of the idle lands that are breeding areas for the grasshoppers. Control with insecticides was good, with the exception of the continuing reinfestation in the northern counties. The continued warm weather in late summer of 1978 and the slow, dry spring of 1979 contributed to the problem. The warm early fall of this year could mean a grasshopper problem in 1980.

COLE CROPS

DISEASES

CRUCIFER DOWNY MILDEW (Peronospora parasitica) was very severe in CALIFORNIA in February on broccoli and cauliflower in the Southern Coast District. Since first found in 1976, this disease has become very serious and widespread in the Low Desert District on broccoli, cauliflower, and cabbage. Fungicidal sprays have not proven very effective in controlling the disease.

INSECTS

CABBAGE LOOPER (Trichoplusia ni) and IMPORTED CABBAGEWORM (Pieris rapae) caused considerable damage in NEW MEXICO to cole crops in truck and home gardens in Bernalillo and Sandoval Counties. Populations in FLORIDA generally built up on untreated cabbage in the Hastings, St. Johns County, area from 2-3 larvae per plant in March to 18 per plant by April 3. Counts gradually decreased the remainder of spring to 1 per plant by May 15, which was the time the cabbage heads had matured. Registered controls for the cabbage looper were good but not excellent.

FALL ARMYWORM (Spodoptera frugiperda) and CORN EARWORM (Heliothis zea) infested fall cabbage in FLORIDA at Hastings. Larvae fed inside the buds and heads where control is difficult due to difficulty in getting insecticide penetration. There were many grower complaints about lack of control. In DELAWARE severe infestations (90+%) of fall armyworm occurred in central Kent County during the first week of October in a large commercial cabbage field.

CUTWORMS, especially DARKSIDED CUTWORM (Euxoa messoria), BLACK CUTWORM (Agrotis ipsilon), and VARIEGATED CUTWORM (Peridroma saucia) in MICHIGAN caused considerable damage to a wide variety of vegetable crops, including radishes.

The CLAYBACKED CUTWORM (Agrotis gladiaria) was probably the most common species in the eastern half of OKLAHOMA but the VARIEGATED CUTWORM (Peridroma saucia) was also commonly received and the BRONZED CUTWORM (Nephelodes minians) was common in a few cases in Wagoner and Muskogee Counties. ARMY CUTWORM (Euxoa auxiliaris) and later variegated cutworm were common in the southwestern and west-central areas. Cutworms were very commonly reported in home gardens in all areas except the northwestern and Panhandle from mid-April to early June. Cabbage, broccoli, cauliflower, and brussel sprouts were commonly damaged.

DIAMONDBACK MOTH (Plutella xylostella) populations in FLORIDA built up to 6 larvae per plant in March at Hastings, peaked at 12 per plant on May 1, and decreased to 1 per plant by May 15. Cabbage was heavily damaged over the area as growers did not get satisfactory control with available insecticides used as recommended. A shortage of cabbage from out-of-State areas enabled growers to market the crop. Larvae fed on the fall cabbage crop at Hastings, riddling the tops of mature cabbage and rendering plants unfit for sale. This type of damage had not been seen at Hastings in many years. Larvae also were found generally feeding in the buds of developing cabbage where considerable damage was done to untreated plants; control was obtained with an organophosphorus compound.

CABBAGE WEBWORM (Hellula rogatalis) larvae in FLORIDA averaged 5 per plant on untreated cabbage at Sanford, Seminole County, during the spring. Recommended sprays provided adequate control in commercial fields.

An active infestation of a PSYCHID MOTH (Apterona crenulella) on cabbage in CALIFORNIA, 56 larvae per leaf, was observed in the Northern Great Basin District in June.

CABBAGE MAGGOT (Hylemya brassicae) populations were moderately heavy on all Brassica in western WASHINGTON compared with previous years. Increasingly large populations were reported from radish and turnip fields in the northern Columbia Basin.

MOLE CRICKETS (Scapteriscus spp.) in FLORIDA were very difficult to control in cabbage seedbeds at Hastings with available insecticides.

CUCURBITS

DISEASES

Summer rains in KANSAS enhanced the activity of CUCURBIT ANTHRACNOSE (Colletotrichum orbiculare) and a LEAF BLIGHT (Alternaria sp.) on watermelon and cantaloupe. These two cucurbit diseases were most prevalent in the eastern one-third of the State.

INSECTS

Very severe infestations of MELONWORM (Diaphania hyalinata) and PICKLEWORM (Diaphania nitidalis) in FLORIDA were difficult to control on 8-16 ha of Cuban squash north of Pahokee, Palm Beach County, during May and June.

CUTWORMS, especially DARKSIDED CUTWORM (Euxoa messoria), BLACK CUTWORM (Agrotis ipsilon), and VARIEGATED CUTWORM (Peridroma saucia) in MICHIGAN caused considerable damage to a wide variety of vegetable crops, including cucumbers.

SQUASH VINE BORER (Melittia satyriniformis) in SOUTH CAROLINA is becoming a serious problem for home vegetable gardeners. Late-planted cucurbits are hardest hit. Properly timed pesticide applications are generally effective.

STRIPED CUCUMBER BEETLE (Acalymma vittata) in DELAWARE was common to abundant in some areas of New Castle County during mid-June on cucurbits.

BEAN APHID (Aphis fabae) infestation in CALIFORNIA was active on squash in August in the Northern Coast District with 15 nymphs and/or adults per leaf. Large populations were recorded on cucurbits throughout western WASHINGTON. Most of the reports came from home garden vegetables. Many weed hosts were also infested.

SQUASH BUG (Anasa tristis) in NEW MEXICO was one of the most serious pests of home gardens in 1979, untreated squash and cucumbers were destroyed throughout the State.

CONCHUELA (Chlorochroa ligata) in CALIFORNIA was light on stems of squash during August in the San Joaquin Valley District.

GENERAL VEGETABLES

DISEASES

A DOWNY MILDEW (Peronospora effusa) was prevalent in eastern KANSAS on spinach in many home gardens in April and May.

Spring rainfall was conducive to several vegetable diseases. ASPARAGUS RUST (*Puccinia asparagi*) was prevalent in southeastern KANSAS on asparagus, onion, and leeks in mid-May.

INSECTS

Heavy CORN EARWORM (*Heliothis zea*) population pressure in NEW MEXICO required treatment of fall lettuce fields in Dona Ana County. Infestations in SOUTH CAROLINA were about the same on vegetables as in 1978. Low population levels created few control problems.

TOBACCO BUDWORM (*Heliothis virescens*) damage to lettuce in CALIFORNIA was heavy and widespread in the Low Desert District in January.

VARIEGATED CUTWORM (*Peridroma saucia*) was active on onions in April in the Low Desert District of CALIFORNIA, larvae were active on rhubarb leaf in the Southern Coast District in April.

CUTWORMS, especially DARKSIDED CUTWORM (*Euxoa messoria*), BLACK CUTWORM (*Agrotis ipsilon*), and variegated cutworm in MICHIGAN caused considerable damage to a wide variety of vegetable crops, including asparagus and onions. Crop losses in asparagus were estimated at about 2-3% (about \$0.2-0.3 million).

ALFALFA LOOPER (*Autographa californica*) trap counts in northwestern WASHINGTON were moderately heavy although far below 1978. Peak counts on June 4 averaged 162 moths per trap compared with 758 per trap in peak flight on June 11. Very little damage was recorded in western Washington on vegetable crops.

CABBAGE LOOPER (*Trichoplusia ni*) larvae were active in CALIFORNIA on lettuce in April in the Low Desert District.

CABBAGE SEEDPOD WEEVIL (*Ceutorhynchus assimilis*) populations were low to moderate in western WASHINGTON and caused little concern in the Brassica seed-growing areas.

VEGETABLE WEEVIL (*Listroderes costirostris obliquus*) larvae were active in CALIFORNIA on romaine lettuce and spinach in March in the Southern Coast District.

Damage to onions by ONION MAGGOT (*Hylemya antiqua*) in MICHIGAN was severe again in 1979 and crop loss was about the same as in 1978 (5-7%, about \$1-1.4 million loss). Since the demand for Michigan onions fluctuates widely (as is true for most vegetables), it is difficult to predict what effect this loss will have on the overall value of onion production.

Overall, VEGETABLE LEAFMINER (*Liriomyza sativae*) populations in FLORIDA were light to moderate on celery in the Zellwood, Orange County, area during 1979. Pest pressure was lightest during the winter months and greatest during late spring and early fall. All growers applied insecticides to control leafminer populations, which were at about the same levels as in 1978. Chalcidoid and braconid parasite populations of this leafminer were also light to moderate. The use of a synthetic pyrethroid kept leafminer damage down to relatively light levels in the Belle Glade, Palm Beach County, area.

A survey for CARROT RUST FLY (Psila rosae) in OREGON from April to November in 5 Clackamas and Multnomah County carrot fields indicated that populations were very light. Adults were caught from April 27 to May 18, from June 29 to July 27, and from October 5 to November 16, indicating 3 emergence periods. Economic infestations were absent in WASHINGTON in the carrot fields of Whatcom and Skagit Counties, but damage was severe to late-planted carrots in some areas of Pierce and King Counties.

AN APHID (Brachycolus asparagi) was recorded for the first time in WASHINGTON in early September, in several asparagus fields in Benton, Yakima, and Franklin Counties. See CPPR 5(1):11. The aphid causes severe stunting of fern growth due to a shortening of internodes and a proliferation of short growth producing a bonsai effect.

AN APHID (Acyrtosiphon scariolae) in CALIFORNIA infested prickly lettuce, 500 adults per stem, in September in the Central Coast and Delta Districts.

RICE ROOT APHID (Rhopalosiphum rufiabdominalis) was active in CALIFORNIA in August on celery in the Salinas Valley District with 20 nymphs and/or adults per root.

Adult populations of a PENTATOMID BUG (Chlorochroa uhleri) in CALIFORNIA were heavy during March on spinach in the San Joaquin Valley District.

WESTERN FLOWER THRIPS (Frankliniella occidentalis) infestation in CALIFORNIA was widespread in a 1-ha artichoke field with an average of 10 nymphs and/or adults per leaf in the Salinas Valley District.

DETECTION

NEW STATE RECORDS

INSECTS

A TENUIPALPID MITE (Pentamerismus erythreus) - FLORIDA - Pinellas County. (p. 129).

NEW COUNTY RECORDS

INSECTS

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - Bay. (p. 129).

FACE FLY (Musca autumnalis) - SOUTH CAROLINA - See page 129.

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - Chester. (p. 130).

CORRECTIONS

CPPR 5(4):95 - Pest Interceptions of Quarantine Significance at Ports of Entry - Aleurotuberculatus jasmini Takahashi, change a soft scale to a whitefly. (PITS). (J. Cousins).

CPPR 5(4):101 - Under soybean section, highlights, third line, SOYBEAN CYST NEMATODE in Michigan should be in Minnesota.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY

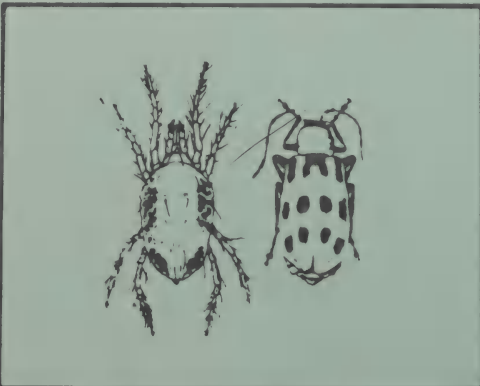


1023169295

(1)

34/033NIDLANESR R1 CPR-0001
~~DR IVAN W KIRK ASST AD~~ (C
USDA SER SR
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179

(2) Library



65823
2653

4/9

Cooperative PLANT PEST REPORT

U.S. March 14, 1980
DEPARTMENT OF AGRICULTURE Vol. 5

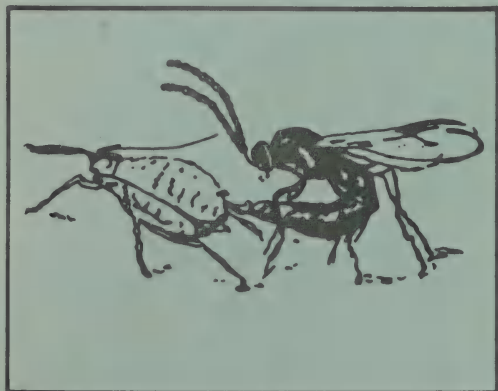
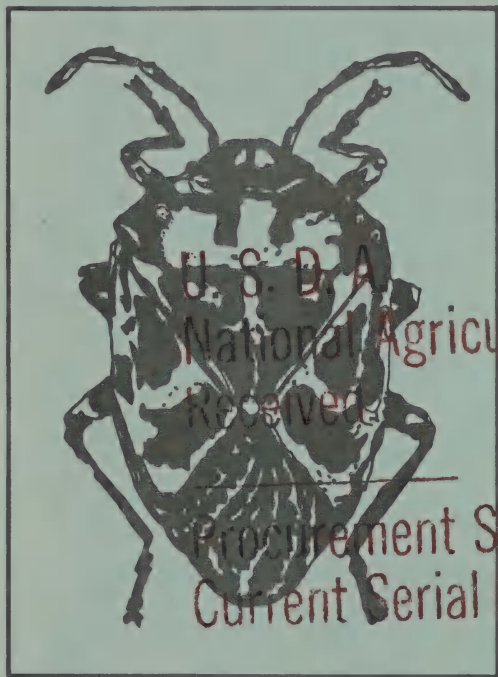
No. 7

Animal
and Plant
Health
Inspection
Service

SOJ. REG. RES.
CTR. USDA
LIBRARY

APR - 2 1980

RECEIVED



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

GREENBUG 100+ per 0.3 row m on wheat in northeastern and southwestern parts of New Mexico and in early fields in parts of Texas and Oklahoma. (p. 141).

Early ALFALFA WEEVIL problems possible in eastern area of Kentucky. (p. 142).

GRASSHOPPER hatch in northeastern area of New Mexico. (p. 145).

Detection

New State records include an ORB SPIDER in Florida (p. 144) and a SPHAEROCERID FLY in Oklahoma (p. 146).

New county records on page 146.

Some First Occurrences of the Season

EASTERN TENT CATERPILLAR larvae in Oklahoma. SPRING CANKERWORM males in Oklahoma. LONE STAR TICK in Oklahoma. HONEY BEE flight in Idaho.

Special Reports

Distribution of Mexican Bean Beetle (map). (p. 148).

Summary of Pest Conditions in the United States - 1979

Deciduous Fruits and Nuts. (p. 149-153).

Citrus. (p. 154).

Other Tropical and Subtropical Fruits. (p. 154-155).

Small Fruits. (p. 155-156).

Reports in this issue are for the week ending March 7 unless otherwise indicated.

CONTENTS

Small Grains	Forest and Shade Trees
Insects.....141	Diseases.....143
	Insects.....143
Forage Legumes	
Insects.....142	Man and Animals
	Insects.....144
General Vegetables	
Diseases.....143	Stored Products
	Insects.....144
Deciduous Fruits and Nuts	
Insects.....143	
Beneficial Organisms and Their Enemies	
Insects.....144	
Federal and State Programs	
Insects.....145	
Hawaii Pest Report.....145	
Corrections.....145	
Light Trap Collections.....145	
Detection.....146	
Pest Interceptions of Quarantine Significance at Ports of Entry.....147	
Distribution of Mexican Bean Beetle (map).....148	
Summary of Pest Conditions in the United States - 1979	
Deciduous Fruits and Nuts	
Diseases.....149	
Insects.....149	
Citrus	
Insects.....154	
Other Tropical and Subtropical Fruits	
Insects.....154	
Small Fruits	
Diseases.....155	
Insects.....155	

SMALL GRAINS

INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= counts per 0.3 row m of wheat: WC> Washita= 0-2 and SW> Jackson= 0-0.6. (D.C. Arnold).

GREENBUG (Schizaphis graminum) - NEW MEXICO - District> County= status on wheat week ending February 29: SE> Lea, NE> Roosevelt, Curry, Quay, and De Baca= infestations widespread, nymphs and adults in 48 of 82 fields, 5-20 per plant in most fields; Roosevelt= averaged 200+ in 1 field east of Portales; Curry= averaged 300+ in 1 field west of Clovis; and Quay= heaviest, averaged 500+ near Ragland, nymphs and adults 100+ on many still green leaves. SE> southern Eddy= nymphs and adults light in oat field and Chaves= light in wheat fields north of Roswell. Current status on small grains: SW> Hidalgo and Luna= mostly light. Infestation heaviest in fields west of Deming in latter county, nymphs and adults averaged 40-100+ per 0.3 row m. (G.L. Nielsen). TEXAS - Greenbugs per 0.3 row m of small grains February 22 (E.P. Boring, III):

District> County	Counts
Cross Timbers> Archer	1-15
Southern Low Plains> Baylor	1-15
Southern Low Plains> Baylor	100+ in early fields
Northern Low Plains> Wilbarger	1-15
Northern Low Plains> Wilbarger	100+ in early fields
Northern Low Plains> Wichita	3-76
Northern Low Plains> Foard	100+ in early fields

OKLAHOMA - District> County= greenbugs per 0.3 row m of wheat: SW> Jackson= up to 200 in spots in early planted wheat, none usually present in late-planted fields, and Panhandle> Texas= 40-50 in spots in 1 of 4 irrigated fields. (D.C. Arnold).

AN APHID (Rhopalosiphum padi) - TEXAS - District> County= counts per 0.3 row m of small grains February 22: Northern Low Plains> Wilbarger and Wichita= 1-2. (E.P. Boring, III). OKLAHOMA - District> County= status on wheat: SW> Jackson= 0-50 per 0.3 row m and Panhandle> Texas= light. (D.C. Arnold).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - District> County= status on wheat week ending February 29: SE> Lea, NE> Roosevelt, Curry, Quay, De Baca= spotted, light, 10-50 per plant in 17 of 82 fields and Lea= 300+ per plant in field north of Lovington. (G.L. Nielsen).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - District> County= counts per 0.3 row m of small grains February 22: Cross Timbers> Archer and Southern Low Plains> Baylor= 2-4 and Northern Low Plains> Wichita= 0-2. (E.P. Boring, III).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - NEW MEXICO - District> County= average larval counts per 0.09 sq m of alfalfa week ending February 29: SE> Eddy= 1st to 3rd instars less than 1 in 8 of 18 fields in southern area and NE> Roosevelt, Curry, Quay, and De Baca= occasional larva and adults. Current larval counts on alfalfa [host height]: SW> Hidalgo= all instars 10-45 per 25 sweeps in 5 of 12 fields in Virden Valley; damage to terminal growth very apparent, averaged 1-5 in another 7 fields [10-15 cm] and 2-12 per 0.09 sq m in field near Rodeo, 1st and 2nd instar larvae 2-3 per terminal on many terminals; 4-8 per 0.09 sq m in field south of Deming [8-13 cm]. (G.L. Nielsen).

OKLAHOMA - Alfalfa weevil egg development can occur when temperatures rise above 8.9-10°C. District> County= degree day (DD) accumulations (base 8.9°C) and eggs per 0.09 sq m, if given, on alfalfa through January 31, February 20, and February 25, respectively: C> Payne= 28 DD and 39, 41 DD and 46, and 46 DD and -; and Grady= 32 DD and 37, 48 DD and 37, and 65.6 DD and -. After February 25, if warm weather returns, damaging larval infestations could be present in latter county in next 7-10 days. (R.C. Berberet, D.C. Arnold). Status on alfalfa: SW> Jackson= larval damage light and dead larvae few, live larvae none on March 6, early hatching larvae apparently destroyed when temperature dropped to -14°C on March 1; C> Payne= eggs averaged 55 per 0.09 sq m of samples on February 27; SC> Stephens= eggs averaged 73 and 192 per 0.09 sq m in 2 fields; and C> Grady= eggs 47 per 0.09 sq m of samples on February 28. (D.C. Arnold).

MISSOURI - District> County= alfalfa weevil egg averages per 0.09 sq m of forage legume stems: SC> Howell= 125 in 1 field and Texas= 366.7 and 145.3 in 2 fields. (R.E. Munson). KENTUCKY - High rate of egg viability (79%) and moderate to heavy egg densities indicated good possibility of early season problems. (J.C. Parr). District> County= egg status in alfalfa week ending February 29: Bluegrass> Fayette= heavy in stems in 2 fields, averaged 178 and 140 per 0.09 sq m, dead stubble about 20-30 cm tall, new shoots began to show; some eggs seemed recently laid (yellow), others seemed near to hatching. (J.C. Parr, P.E. Sloderbeck).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - District> County= nymphs and adults per 0.09 sq m of alfalfa week ending February 29: SE> Eddy, Lea, NE> Roosevelt, Curry, Quay, and De Baca= 4-30 in 32 of 85 fields, southern Eddy and De Baca= many parasitized by wasps; current nymphs and adults per 25 sweeps of alfalfa: SW> Hidalgo= very light, 8-50 in 12 fields in Virden Valley and light, averaged less than 20, at Cotton City (Animas area), Rodeo, and SW> Luna. (G.L. Nielsen).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - District> County= average nymphs and adults per 25 sweeps of alfalfa week ending February 29: SE> southern Eddy= very light, less than 5 in 3 of 18 fields. (G.L. Nielsen).

LYGUS BUGS (Lygus spp.) - NEW MEXICO - District> County= adults per 25 sweeps of alfalfa: SW> Hidalgo= 2 in 12 fields in Virden Valley. (G.L. Nielsen).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - District> County= immatures and adults in alfalfa: SW> Hidalgo= very light in 2 of 12 fields and not widespread in Virden Valley. (G.L. Nielsen).

GENERAL VEGETABLES

DISEASES

PINK ROOT (Pyrenochaeta terrestris) - NEW MEXICO - District> County= prevalence on onions week ending February 29: NW> Bernalillo= heavy in transplants from nursery at Albuquerque. (M. Stefano, C. Heninger).

DECIDUOUS FRUITS AND NUTS

INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - OKLAHOMA - First of season. District> County= status on wild plum: C> Pottawatomie= hatching noted on March 4. (D.C. Arnold).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - OKLAHOMA - District> County= status: EC> McIntosh= heavy on Red Delicious apple trees and NE> Wagoner= light. (D.C. Arnold).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KENTUCKY - New county record. District> County= collection data from Pinus nigra (Austrian pine): Bluegrass> Fayette= adults heavy in dead tree at Lexington, February 24, 1980, collected and determined by R.A. Chapman. (P.E. Sloderbeck).

INSECTS

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - SOUTH CAROLINA - Area> status: Upper Piedmont> activity very heavy, up to 20 ha of pines destroyed in some spots. Salvage values as of December 31, 1979 (M.C. Remion):

<u>Month(s)</u>	<u>Cords</u>	<u>Board feet</u>	<u>Value paid to landowners</u>
Jul to Nov 1979	57,741	2,121,641	\$ 590,314
Dec 1979	16,305	420,000	160,182
Total	74,046	2,541,641	\$ 750,496

AN APHID (Cinara watsoni) - OKLAHOMA - New county records for the first 2 counties. District> County= collection data: EC> Cherokee= collected on Pinus echinata (shortleaf pine) 3 km east of Tahlequah, February 7, 1980, by C. Acuff; and SC> Atoka= collected from Pinus sp. (a pine) at Stringtown, February 11, by R. Reeves. Both determined by D.C. Arnold. SE> Le Flore and McCurtain in Broken Bow area= heavy. (D.C. Arnold).

A MARGARODID SCALE (Matsucoccus acalyptus) - NEW MEXICO - District> County= status on pinyon pine: NW> Santa Fe= moderate on about 100 ha north of Santa Fe. (J. Davis).

SPRING CANKERWORM (Paleacrita vernata) - OKLAHOMA - First of season. District> County= adult status: C> Payne= males at lights at Stillwater. (D.C. Arnold). KANSAS - District> County= status: SW> Finney= some flying to lights at

Garden City, February 21 (M.L. Shuman), SE> Butler= spring cankerworm males around lights of farmstead near Benton during evening of February 27 (J.W. Foster), and Crawford= at lighted windows at Pittsburg, February 27 (L.R. Dinkins).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - FLORIDA - District> County= average per animal in small beef herd February 28 and March 5: C> Alachua= 18 and 14, respectively, at Micanopy. (D. Simon).

HOG LOUSE (Haematopinus suis) - MISSISSIPPI - District> County= counts per head on breeding stock hogs: EC> Noxubee= 0-11. (R. Anderson).

EAR TICK (Otobius megnini) - OKLAHOMA - District> County= status: SC> Atoka= about 50 in ears of untreated calf, most of rest of herd treated, counts only light; 10-30 per head on 4 cows and 1 bull in second herd. (D.C. Arnold).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - First of season. District> County= status on cattle: SC> Atoka= occasional male seen and SE> Le Flore= reported. (D.C. Arnold).

STORED PRODUCTS

INSECTS

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Area> status on corn: Southern Coastal Plain> adult activity increased in farm-stored corn. Activity expected to increase with predicted 18+°C temperatures. (T. Hunt).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

LADY BEETLES - NEW MEXICO - District> County= mostly CONVERGENT LADY BEETLE (Hippodamia convergens) and DAMSEL BUGS (Nabis spp.) adults on wheat week ending February 29: SE> Lea, NE> Roosevelt, Curry, Quay, and De Baca= common in fields infested with Schizaphis graminum (greenbug) and Petrobia latens (brown wheat mite). (G.L. Nielsen). OKLAHOMA - District> County= convergent lady beetle per 0.3 row m of wheat: SW> Jackson= 0-0.5. (D.C. Arnold).

HONEY BEE (Apis mellifera) - IDAHO - First of season. District> County= status February 18: SW> Canyon= flight at Parma. (N.D. Waters).

AN ORB SPIDER (Singa eugeni) - FLORIDA - New State record. District> County= collection data: C> Levy= adult females collected from seed heads of smooth cordgrass (Spartina alterniflora) growing in wild near Cedar Key, December 31, 1979, by L. Wood, determined by G.B. Edwards. (L. Wood).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASSHOPPERS - NEW MEXICO - District> County= egg status week ending February 29: NE> Roosevelt= began hatch along fence rows and ditch banks in Portales area. (B. Smith, G.L. Nielsen).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States, February 24 to March 1. No cases confirmed in portion of eradication zone in Republic of Mexico. Total of 176 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 5,344,080, all in Texas. Total of 195,214,120 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

Fruits and Nuts - CARMINE SPIDER MITE (Tetranychus cinnabarinus) - Island= status on Physalis peruviana (poha): Hawaii= severe infestation on 0.1 ha at Volcano. Severe leaf drop, webbing, and massing of adults on tips of terminals. (R.S. Kami et al.).

Ornamentals and Shade Trees - A WHITEFLY (Aleurodicus dispersus) - Island= status on seagrape, coconut, plumeria, and other hosts: Oahu= very heavy at Makaha. (B.R. Kumashiro et al.).

LIGHT TRAP COLLECTIONS

CALIFORNIA - Bellota, 3/2, temp. 6.7-15°C, precip. 5 mm, BL - VARIEGATED CUTWORM (Peridroma saucia) 2. FLORIDA - Gainesville, 2/28-3/5, BL - ARMYWORM (Pseudaletia unipuncta) 1, GRANULATE CUTWORM (Feltia subterranea) 4, variegated cutworm 1.

CORRECTIONS

CPPR 5(3):79 - "TAKE-ALL (Gaeumannomyces graminis var. graminis)...." should read "TAKE-ALL (Gaeumannomyces graminis var. tritici)...."

DETECTION

NEW STATE RECORDS

INSECTS

AN ORB SPIDER (Singa eugeni) - FLORIDA - Levy County. (p. 144).

A SPHAEROCERID FLY (Leptocera vagans) - OKLAHOMA - District> County= collection data: Panhandle> Texas= from feedlot 11 km north of Hitchland, July 10, 1979, collected by W.B. Massey, determined by G. Steyskal. (D.C. Arnold).

NEW COUNTY RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KENTUCKY - Fayette. (p. 143).

INSECTS

AN APHID (Cinara watsoni) - OKLAHOMA - Cherokee and Atoka. (p. 143).

MEADOW SPITTLEBUG (Philaenus spumarius) - KENTUCKY - Adults collected from unknown host. All determined by P.E. Sloderbeck. (P.E. Sloderbeck).

<u>District> County</u>	<u>City</u>	<u>Collector</u>	<u>Date</u>
Midwestern> Caldwell	Princeton	P.H. Freytag	Jun 26, 1974
E> Breathitt	Jackson	Unknown	Aug 2, 1974
C> Hardin	Elizabethtown	D. Barnett	Jul 23, 1975
Bluegrass> Bath	Owingsville	D. Barnett	Jul 31, 1975
Bluegrass> Woodford	Versailles	P. Threadgill	May 24, 1976

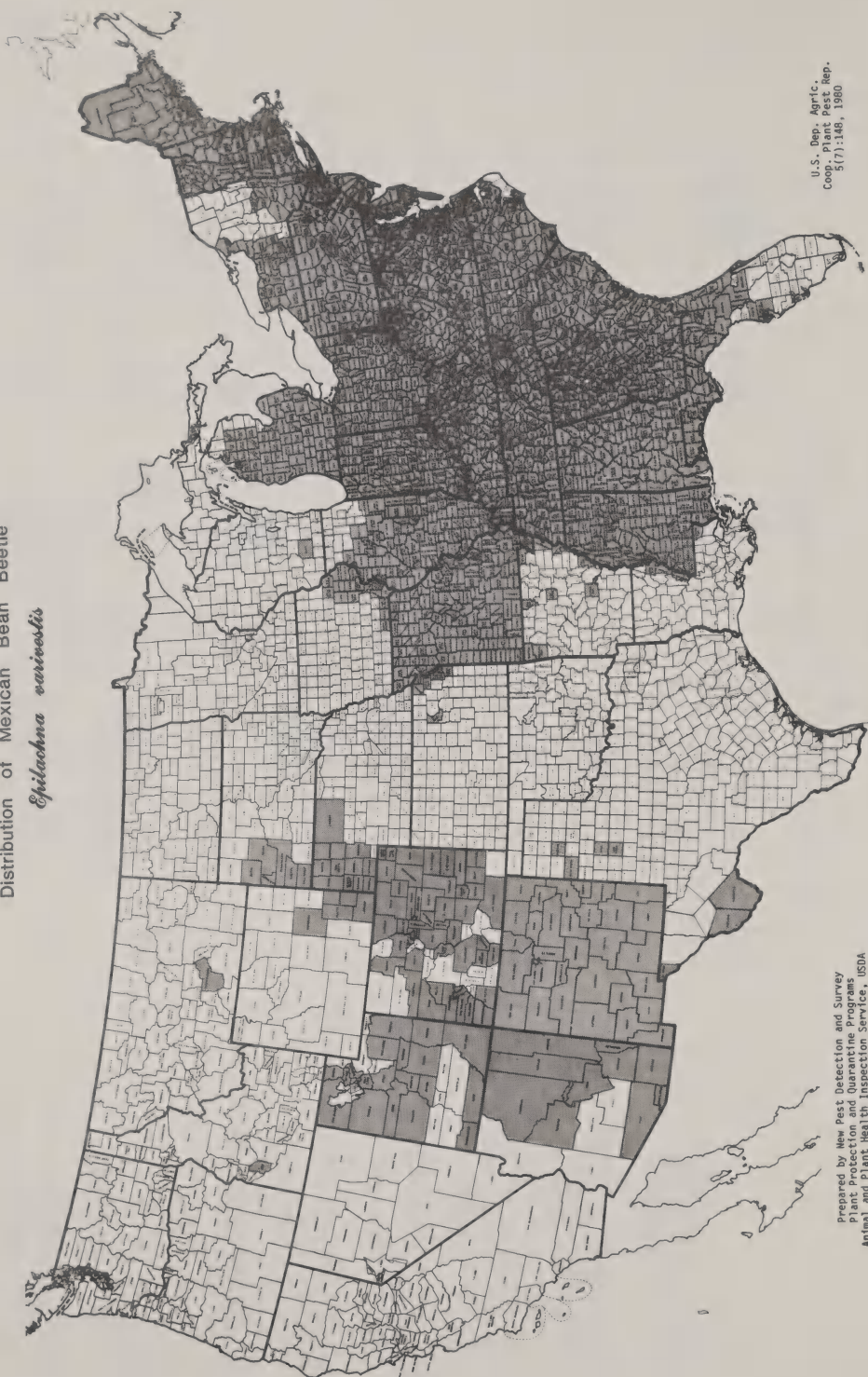
Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

	<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Adoretus sinicus</u> Burmeister Chinese rose beetle Det. R. Kunishi	adult	on leaves of <u>Cordyline</u> from mail	Hawaii	Honolulu	G. Chang	TX
<u>Cryptophlebia leucotreta</u> Meyrick false codling moth Det. D.M. Weisman	Larval	in peppers from baggage	Ghana	Atlanta	E. Coker	GA
<u>Diocalandra taitensis</u> Guérin- Tahitian coconut weevil Méneville Det. R. Kunishi	adult	in coconuts from baggage	Hawaii	Kona	J. Hatakenaka	WA
<u>Dysmicoccus mackenziei</u> Beardsley a mealybug Det. S. Nakahara	adult	on leaves of <u>Tillandsia</u> plants from baggage	Ecuador	Los Angeles	R. Hashimoto	CA
<u>Naupactus xanthographus</u> (Germar) a weevil Det. D.R. Whitehead	adult	with pears from cargo	Chile	Philadelphia	C. Mueller	PA
<u>Pseudococcus importatus</u> McKenzie a mealybug Det. S. Nakahara	adult	on stems of <u>Laelia</u> plants from cargo	Mexico	Los Angeles	R. Hashimoto	CA
<u>Puto ulter</u> Ferris a mealybug Det. S. Nakahara	adult	on leaves of orchid plants from cargo	Guatemala	Los Angeles	S. Downing	CA
<u>Scirtothrips aurantii</u> Faure a thrips Det. S. Nakahara	adult	on cut <u>Protea</u> flowers from baggage	South Africa	Kennedy Airport	D. Walters	NY

Distribution of Mexican Bean Beetle

Epilachna varivestis



U.S. Dep. Agric. Rep.
Coop. Pest. Contr. Rep.
5(7):148, 1980

Prepared by New Pest Detection and Survey
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service, USDA
February 15, 1980

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(Continued from page 138)

DECIDUOUS FRUITS AND NUTS

Highlights

Control problems with GRACILLARIID MOTHS occurred in Michigan. WINTER MOTH severely damaged foliage of unmanaged apples and filberts in Oregon. Larvae of a TORTRICID MOTH caused apple losses in Washington. The first APPLE MAGGOT infestation west of the Rocky Mountains was found in Oregon. WHITE MAPLE LEAFHOPPER reinfested many apple orchards in Washington. GRAPE MEALYBUG continued to spread and cause pear losses in parts of Washington. SAN JOSE SCALE was widespread on apples again in Washington. PEAR PSYLLA populations were near normal but overwintering adults were heavy in Washington again in the fall of 1979. Serious SPIDER MITE problems occurred in pear, apple, and cherry orchards that had chemicals applied or were under integrated control in Washington. FALL WEBWORM was very heavy in the Willamette Valley of Oregon for the third year.

DISEASES

CEDAR-APPLE RUST (Gymnosporangium juniperi-virginianae) was the most-often reported apple disease in KANSAS in 1979. Rainfall in April and May provided ideal conditions for abundant basidiospore production and release over an extended period. Unprotected trees were heavily infected. APPLE SCAB (Venturia inaequalis) was also a problem where control measures were not taken.

The rainy, humid conditions in KANSAS were conducive to the development of STONE FRUIT BACTERIAL SPOT (Xanthomonas pruni) and PEACH LEAF CURL (Taphrina deformans) on peaches in Kansas, especially in the southeastern and south-central areas.

FIRE BLIGHT (Erwinia amylovora) infections in KANSAS were limited on pear in the southeastern area in early June. Serious infections were reported in Fond du Lac, Washington, Calumet, Waukesha, Waupaca, and La Cross Counties, WISCONSIN. Wet weather favored development, and severe apple and pear infections were common.

INSECTS

Higher than normal CODLING MOTH (Laspeyresia pomonella) populations in WASHINGTON were recorded throughout the apple-growing areas. First brood emergence in the Yakima area occurred April 26-30, with peak flight in mid-May for the first brood and late July for the second brood. No significant crop losses were reported but more sprays were required because of prolonged second-brood flight. Moth activity in WISCONSIN was detected in a Crawford County pheromone trap during the last week of May, and continued until September 7, when the last specimens were reported from Manitowoc County. A peak in moth activity was noted in Dane County about June 5 and again about July 13, although activity continued until about August 12. Damage was limited largely to untreated trees.

ORIENTAL FRUIT MOTH (Grapholitha molesta) adults were active in CALIFORNIA in April in a pear orchard in the Northern Coast District. Adults were collected in pheromone traps in PENNSYLVANIA at the rate of 2 per trap at Arendtsville, Adams County, on June 11.

The WINTER MOTH (Operophtera brumata) in OREGON severely damaged the foliage of unmanaged apple and filbert trees in southeastern Washington County. Such damage is predicted as these are also favored hosts in Europe. Developmentally, the winter moth appears to be exhibiting a pattern similar to that displayed in England. Larvae completed their development by the latter part of May with peak numbers present during the last 2 weeks of April and the first week of May. The first males emerged November 5, first females on November 12. Moths have been continuously active in abandoned filbert orchards in the Tigard area with only a few days of low numbers apparent during days when minimum temperature reached 0°C or below.

A GRACILLARIID MOTH (Lithocolletis blancardella) and another GRACILLARIID MOTH (Parornix geminatella) were distributed throughout MICHIGAN on mostly apples. Some areas had more than 5 mines per leaf. Thresholds for damage were not established. The population outbreak was due to resistance to organophosphate and the kill of parasites by insecticides.

VARIEGATED CUTWORM (Peridroma saucia) larvae in CALIFORNIA fed on nectarines in April in the Southern Coast District.

APPLE-AND-THORN SKELETONIZER (Anthophila pariana) was active on leaves of apple, 7 larvae per leaf, in the Northern Coast District of CALIFORNIA in September.

EASTERN TENT CATERPILLAR (Malacosoma americanum) larval populations were very heavy in KENTUCKY causing complete defoliation to most wild cherry trees throughout much of the State by mid-to late April. Other trees, such as apple, crabapple, and willow, were infested to a lesser degree. Larvae searching for pupation sites during early May annoyed homeowners by crawling over sidewalks, driveways, lawns, and walls of buildings. The heavy adult flight that occurred during June and the egg laying that accompanied it indicate that outbreak populations are likely again in 1980. In PENNSYLVANIA, reports of heavy defoliation of cherry trees were received May 6-22.

FRUITTREE LEAFROLLER (Archips argyrospilus) larvae in CALIFORNIA were active in May on limbs of prune trees in the Central Coast and Delta District. Damage in NEW MEXICO was more severe than usual, requiring treatment in apple orchards in Sandoval, Bernalillo, Rio Arriba, and Taos Counties. It also caused minor damage on apples being stored in Rio Arriba County.

REDBANDED LEAFROLLER (Argyrotaenia velutinana) adults in PENNSYLVANIA were collected in pheromone traps at the rate of 1 per trap at Arendtsville, Adams County, on June 11.

A TORTRICID MOTH (Pandemis pyrusana) in WASHINGTON was a problem on 607.0 ha of apples in the east Wenatchee area, Chelan County, and in the Parker to west Wapato areas of Yakima County on apples and prunes. Apple losses in the Wenatchee area were between 5-10% in most orchards where the leafroller occurred.

A TORTRICID MOTH (Platynota idaeusalis) population in NORTH CAROLINA began escalating during 1976 and appears to have stabilized at about 5% loss from the fresh market grades in the major apple-production area, Henderson County. Sporadic infestations have also been detected in Mitchell County, but no reports have been confirmed from the other commercial apple-producing counties. Adults in PENNSYLVANIA were collected in pheromone traps at the rate of 21 per trap at Arendtsville, Adams County, on June 11.

Adults and immatures of a COCCINELLID BEETLE (Stethorus punctum) were observed in PENNSYLVANIA at the rate of 5 per 3 minute count on apple trees at Fairfield, Adams County, on June 11.

CRIBRATE WEEVIL (Otiorhynchus cribricollis) was active in CALIFORNIA in February on apricot in the Southern Coast District with 4 adults per limb.

A NITIDULID BEETLE (Conotelus mexicanus) in CALIFORNIA was very abundant on almond, peach, and nectarine blooms causing some damage in the San Joaquin Valley District in March.

SHOTHOLE BORER (Scolytus rugulosus) in SOUTH CAROLINA caused serious damage to young peach trees that had been damaged by high winds during early September. Brush piles were near the location with the most severe damage.

APPLE MAGGOT (Rhagoletis pomonella) was caught in bait traps in WISCONSIN from June 25 through September 15. Counts were erratic throughout the season, and growers noted flies visiting apples but not being caught on the traps. As harvesting began late in the summer, many untreated or infrequently treated backyard trees exhibited severe maggot injury to the apples. In MICHIGAN it was distributed throughout the State, 1-2% harvested fruit infested, and economic damage was more than 1%. Population was stable.

WHITE APPLE LEAFHOPPER (Typhlocyba pomaria) in WASHINGTON is now present in practically every apple orchard in the Yakima Valley. Second generation leafhoppers reinfested many orchards, even where effective control of the first generation was achieved.

WOOLLY APPLE APHID (Eriosoma lanigerum) is distributed throughout MICHIGAN. More than 50% of scaffold branches were infested. Threshold for damage was not established. Outbreak was due to the use of carbamate pesticide-resistance and/or the kill of natural enemies.

MEALY PLUM APHID (Hyalopterus pruni) in CALIFORNIA was in large numbers in June in dooryard plum trees in the Central Coast and Delta Districts with 50 nymphs and adults per leaf. Ten nymphs and adults per leaf infested apricot leaves in the San Joaquin Valley District in August.

GRAPE MEALYBUG (Pseudococcus maritimus) in WASHINGTON continued to spread through pear orchards in Chelan and Douglas Counties. Some growers suffered heavy losses of d'Anjou pears due to honeydew russet caused by this insect. Only 1 generation developed in 1979, and the fruit damage occurred in late May and June. Organophosphates were generally not effective against mealybugs though the initial kill was good. The long period of crawler emergence, from delayed dormant to petal fall, precludes a single spray from being effective.

SAN JOSE SCALE (Quadraspidiotus perniciosus) infestations in CALIFORNIA were heavy on nectarines in April in the Southern Coast District. Infestations were widespread once again in WASHINGTON, especially in apples. There was a good survival of overwintering scales, even though temperatures dropped to -26°C to -29°C in January. First generation crawlers appeared about June 1 in the early districts with continued emergence through the harvest period.

GREEDY SCALE (Hemiberlesia rapax) in CALIFORNIA was active in August on pear in the Salinas Valley District with 10 adults per stem.

ITALIAN PEAR SCALE (Epidiaspis leperii) in CALIFORNIA was active on apple seedling in February in the Northern Coast District with 10 adults per stem causing pit-like deformation of the stems.

OYSTERSHELL SCALE (Lepidosaphes ulmi) and LATANIA SCALE (Hemiberlesia lataniae) in CALIFORNIA were active on pear trees in the Salinas Valley District with 5 adults per limb in August.

PEAR PSYLLA (Psylla pyricola) populations in WASHINGTON were near normal. Overwintering adult densities averaged 25-50 per tray in late February and early March. Prebloom control of adults with a pyrethroid was good, but summer control was difficult to obtain with the pesticides available. There was little cullage of fruit this year due to honeydew marking. Overwintering adult populations were high again this fall due to a long period of warm, mild weather in September and October.

BOXELDER BUG (Leptocoris trivittatus) became a serious pest of pear in Chelan County, WASHINGTON. Large numbers of adults invaded apple and pear orchards, especially those located in narrow valleys along the Wenatchee River, in late August and September. Control efforts were frustrated by the continuing migration from nearby native land. One factor probably contributing to the large numbers of boxelder bugs in orchards was the dry summer which caused native maple to dry up or go dormant earlier than normal. Some lots of fruit were so heavily damaged that they were not salvaged. Damage to pear consisted of areas of white, cottony cork 6-10 mm in diameter surrounding the feeding puncture.

TARNISHED PLANT BUG (Lygus lineolaris) and STINK BUGS (Acrosternum and Euschistus spp.) in SOUTH CAROLINA caused catfacing damage to about 5% of the peach crop and 7% of the apple crop.

Light populations of WESTERN FLOWER THRIPS (Frankliniella occidentalis) in CALIFORNIA were on nectarines in March in the San Joaquin Valley District with 10 thrips per 10 trees.

Populations of TWOSPOTTED SPIDER MITE (Tetranychus urticae) and EUROPEAN RED MITE (Panonychus ulmi) in SOUTH CAROLINA reached levels of 60-80 per leaf in some apple orchards. Prompt chemical treatments prevented serious damage. Only light populations, 10-20 per leaf, were found on peaches.

TWOSPOTTED SPIDER MITE (Tetranychus urticae), MCDANIEL SPIDER MITE (Tetranychus mcdanieli), and EUROPEAN RED MITE (Panonychus ulmi) in WASHINGTON were serious, especially on pears following use of a pyrethroid. Two or more miticide sprays were necessary in many pear blocks. Mites were especially troublesome in apple blocks adjoining pears. Outbreaks of European red mite also occurred in apples previously under stable integrated mite control programs. Serious outbreaks also developed in cherries where 1 or more applications of a carbamate was made last season for bird control.

EUROPEAN RED MITE (Panonychus ulmi) immatures and adults in PENNSYLVANIA were observed at 5 per leaf on apple trees at Fairfield, Adams County, on June 11.

FALL WEBWORM (Hyphantria cunea) in CALIFORNIA was active on leaves and limbs of walnut in the San Joaquin Valley District in July. Larvae in OREGON were extremely abundant in the mid-Willamette Valley for the third consecutive year. Favored hosts, such as black walnut, were completely defoliated by early September. Mass movements of caterpillars caused many complaints from residents.

During May no PECAN NUT CASEBEARER (Acrobasis nuxvorella) larvae were found in pecans in NEW MEXICO at Lovington and Hobbs, Lea County. Surveys indicated that about 5% of the nut clusters were infested in Eddy and Chaves Counties. Survey in August indicated this pest had spread at Hobbs, but no infested nuts were detected at Lovington.

In OKLAHOMA eggs were found on pecans from May 23 in Jefferson County to June 18 in Payne County, but most were laid during the first week of June. Moderate to heavy infestations were common in many central and eastern counties with damaged clusters ranging 25-55% reported on untreated trees in some areas. Pupation was underway by the middle of July.

NAVEL ORANGEWORM (Amyelois transitella) larvae (3rd and 4th instars) and pupae in CALIFORNIA were active on stored dooryard walnuts in San Joaquin Valley District in January.

PEACH TWIG BORER (Anarsia lineatella) larvae in CALIFORNIA were active on the growing tips of almond in April in the Southern Coast and Sacramento Valley Districts.

WALNUT CATERPILLAR (Datana integerrima) larvae in KENTUCKY defoliated walnut trees at scattered locations throughout the central area during August.

PECAN SERPENTINE LEAFMINER (Nepticula juglandifoliella) was active in CALIFORNIA on black walnut in the Salinas Valley District with 20 adults per leaf in July.

WALNUT HUSK FLY (Rhagoletis completa) in OREGON emerged on schedule this year, July 27, in Yamhill County, but daily counts through September 20 never went above 2 per trap. A few reports of husk damage were reported in the Salem area, Marion County. Other commercial orchards in Yamhill County had such low fly populations that controls were not used.

AN APHID (Panaphis juglandis) in CALIFORNIA was active on English walnut in July in the Northern Great Basin District and in September in the Central Coast and Delta Districts.

In April, numerous adults of a COCCID SCALE (Lecanium prunosum) in CALIFORNIA were active on walnut trees in the Sacramento Valley and Southern Coast Districts.

Immatures and adults of WALNUT BLISTER MITE (Eriophyes erinea) were active in CALIFORNIA on leaves of English walnut in the Salinas Valley District with 20 larvae per leaf in July and on leaves of apple, walnut, hazelnuts, and ribes in the Central Mountains and Foothill District in August.

CITRUS

INSECTS

CITRUS SNOW SCALE (Unaspis citri) in FLORIDA tended to build up and be a problem in the lower East Coast and lower Ridge citrus Districts where its parasite, a eulophid wasp (Aphytis lingnanensis), was not yet established. Population flareups occurred in some groves where the wasp has been active, due to misuse of wettable sulphur as a miticide.

CHAFF SCALE (Parlatoria pergandii) damage to Dancy tangerines in FLORIDA has increased during the last 2 or 3 years up and down the central Ridge District. Ten or more green spots on a tangerine lowers the grade, keeping it from the fresh fruit market.

CALIFORNIA RED SCALE (Aonidiella aurantii) was active in CALIFORNIA on Citrus sp. in the San Joaquin Valley District and on orange in the Central Mountains and Foothills Districts in January, and adults were active on lemon in the Southern Coast District in February.

Adults and nymphs of a WAX SCALE (Ceroplastes sinensis) in CALIFORNIA were active on lemon in January in the San Joaquin Valley District.

A total of 15 BROWN SOFT SCALE (Coccus hesperidum) nymphs and adults in CALIFORNIA were active on leaves at the growing tips of Citrus sp. branches in the Southern Coast District in February. Adults were active on Citrus sp., 10 per stem, in the San Joaquin Valley District in June.

WOOLLY WHITEFLY (Aleurothrixus floccosus) nymphs and adults in CALIFORNIA were moderate to heavy on leaves of orange in the Southern Coast District in January; eggs, nymphs, and adults averaged 45 per leaf.

COTTONCUSHION SCALE (Icerya purchasi) infestations were heavy in CALIFORNIA on the above ground part of Citrus limon (lemon) in the Southern Coast District in February.

CITRUS RUST MITE (Phyllocoptruta oleivora) in FLORIDA remained the number one arthropod pest of citrus. Populations peaked later than usual, probably because spring rains produced an abnormally wet season. Growers had their usual concern for this pest and applied sprays to control it.

OTHER TROPICAL AND SUBTROPICAL FRUITS

INSECTS

GREEN PEACH APHID (Myzus persicae) and BEAN APHID (Aphis fabae) infestations in CALIFORNIA were estimated at 20 adults per stem on avocado in the Southern Coast District in May.

PAPAYA FRUIT FLY (Toxotrypana curvicauda) in FLORIDA caused heavy losses to commercial papaya production in the Homestead, Dade County, area during the summer.

BROWN SOFT SCALE (Coccus hesperidum) in CALIFORNIA was observed feeding on pistachios in the San Joaquin Valley District in August, on figs at the rate of one per leaf, and on citrus at the rate of two adults per stem.

LATANIA SCALE (Hemiberlesia lataniae) in CALIFORNIA was extremely heavy in April on twigs, leaves, and fruit in an olive grove in the San Joaquin Valley District. Scales were so heavy on a 2.5-cm diameter of wood that the bark was not visible. In June, an infestation was found in the Southern Coast District on banana with an average of 15 nymphs and/or adults per stem.

SMALL FRUITS

DISEASES

GRAPE POWDERY MILDEW (Uncinula necator) in NEW MEXICO affected grapes and foliage during July in home plantings at Las Cruces, Dona Ana County.

INSECTS

The first adult flight period of an OLETHREUTID MOTH (Paralobesia viteana) in PENNSYLVANIA began around June 11, peaked during the last week in June, and decreased by the second week of July. The second adult flight period began around July 18, peaked during the last week of July, and decreased throughout August. Larvae were first detected in clusters around June 25. Larval infestations increased to economic levels on grapes by July 16, and spraying was required in some areas at this time. Larval infestations were reduced by the third week of July and remained low throughout the remainder of the season.

BLACKHEADED FIREWORM (Rhopobota naevana naevana) larvae in WASHINGTON severely damaged 3 cranberry bogs totaling about 8 ha. It was probably due to a poor spray program over a period of 3-4 years.

CRANBERRY GIRDLER (Chrysoteuchia topiaria) larvae in WASHINGTON damaged several cranberry bogs in the Grayland, Grays Harbor County, area. Losses of vines varied from 5% to 75%.

SPOTTED CUTWORM (Amathes c-nigrum) larvae in WASHINGTON caused 10-25% loss of primary red raspberry buds in March on about 40 ha in Whatcom County. Second brood larvae were a serious contamination problem in mechanically harvested berries in several fields in July.

GRAPE ROOT BORER (Vitacea polistiformis) in FLORIDA has become a significant problem on grape vines in the Tampa area, Hillsborough County, and is becoming more of a problem in the central area, affecting bunch and muscadine grapes.

No reports of the first adult flight period for REDBANDED LEAFROLLER (Argyrotaenia velutinana) were received in PENNSYLVANIA. The second adult flight period began around June 26, peaked on July 14, and declined up to mid-August when the third flight period began around August 21. Larvae were first detected on grapes at 3 locations in Erie County on June 20. Larval infestations remained low throughout June and July and were undetectable by July 31. Clusters remained free of larvae through August 28, the last report received. One egg mass was found at this time.

STRAWBERRY WEEVIL (Anthonomus signatus) in MICHIGAN clipped more than 4 strawberry buds per 3 row m in Oakland, Genesee, St. Clair, Macomb, Allegan, Ottawa, Barry, Van Buren, Cass, and Berrien Counties. Loss was estimated at 4% of total crop. Population has been stable for the past 4-5 years.

GRAPE CANE GALLMAKER (Ampelogypter sesostris) adults in PENNSYLVANIA were actively feeding on grapes by June 10 and caused damage at all locations in Erie County by June 17.

RASPBERRY CANE MAGGOT (Pegomya rubivora) in WASHINGTON girdled about 25% of the black raspberry primary canes in a 16-ha field.

BLUEBERRY MAGGOT (Rhagoletis mendax) in MICHIGAN was found in Allegan, Berrien, Van Buren, Ottawa, and Muskegon Counties. Harvested blueberry with maggots was 1-2%. Pest damage was economic, more than 2% of the crop. Population increased slightly due to poor insecticide coverage at harvest.

Nymphs of GRAPE LEAFHOPPER (Erythroneura comes) in PENNSYLVANIA were beginning to appear on the underside of grape leaves and were evident at 50+% of the locations in Erie County by July 1.

Nymphs and adults of a LEAFHOPPER (Erythroneura variabilis) in CALIFORNIA were medium to heavy on grapes in the Southern Coast District in May.

STRAWBERRY WHITEFLY (Trialeurodes packardii) was active in CALIFORNIA in June on strawberry in the San Joaquin Valley District with 25 nymphs per leaf.

APHIDS (Masonaphis pepperi and Myzus scammelli) in MICHIGAN infested blueberries at one per 50 terminals (noneconomic) in Allegan, Berrien, Van Buren, Ottawa, and Muskegon Counties. This is a possible vector of VACCINIUM SHOOT-STRING VIRUS. Population outbreak in some fields resulted from the insecticide killing natural enemies.

TWOSPOTTED SPIDER MITE (Tetranychus urticae) populations on strawberries in Hillsborough County, FLORIDA, reached its normal economic level in March and April, forcing growers to treat.

In WASHINGTON, sprays were required in many strawberry fields in the western area for much heavier than usual populations of overwintering mites in April. Counts of 50 or more per leaf were recorded. Heavy populations of overwintered mites in red raspberries required prebloom spraying in the spring. This is very unusual.

Thirty nymphs and adults of a SPIDER MITE (Eotetranychus willamettei) was in CALIFORNIA on grapes with nymphs and adults per leaf in September in the San Joaquin Valley District.

CYCLAMEN MITE (Steneotarsonemus pallidus) in WASHINGTON was observed in 3 strawberry fields in Clark and Whatcom Counties, totaling about 20 ha. It has been seen in a few fields each of the past 3 years after an absence of about 20 years.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre



1023142878

Official Business
Penalty for Private Use, \$300

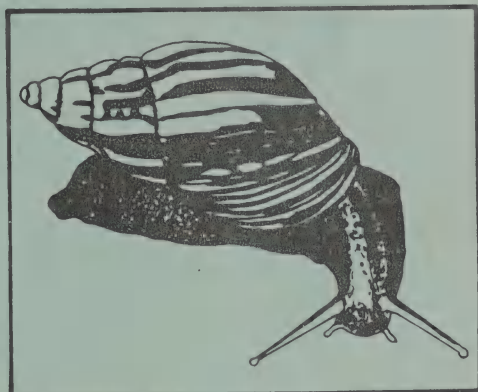
34/033NIDLANESR R1 CPR-0001
~~DR IVAN W KIRK ASST AD~~
USDA SER SR **LIBRARY**
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



258823
7153
**Cooperative
PLANT
PEST
REPORT**

STA/STA
U.S. March 1980
DEPARTMENT
OF AGRICULTURE Vol. 5
No. 8
**Animal
and Plant
Health
Inspection
Service**
MAR 21 '80

FIELD SECTION
CURRENT SERIAL RECORDS



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

WHITE MOLD probably most serious problem on beans in southern area of Florida. (p. 161).

Detection

New county records on page 164.

New hosts for PINWOOD NEMATODE for Illinois and Florida. (p. 162-163).

Some First Occurrences of the Season

SPECKLED LEAF BLOTCH and SOIL-BORNE WHEAT MOSAIC VIRUS in Kansas. NANTUCKET PINE TIP MOTH in California.

Special Reports

Summary of Pest Conditions in the United States - 1979
Ornamentals. (p. 166-167).
Forest Disease and Insect Highlights. (p. 167-170).
Forest and Shade Trees. (p. 171-174).

Reports in this issue are for the week ending March 14 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Diseases.....	159	Deciduous Fruits and Nuts Insects.....	161
Small Grains Diseases.....	159	Other Tropical & Subtropical Fruit Insects.....	162
Insects.....	160	Small Fruits Insects.....	162
Forage Legumes Insects.....	160	Ornamentals Insects.....	162
Soybeans Insects.....	160	Forest and Shade Trees Diseases.....	162
Potatoes, Tomatoes, Peppers Diseases.....	161	Insects.....	163
Insects.....	161	Man and Animals Insects.....	163
Beans and Peas Diseases.....	161		
Insects.....	161		
Federal and State Programs Insects.....	163		
Hawaii Pest Report.....	163		
Corrections.....	164		
Light Trap Collections.....	164		
Detection.....	164		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	165		
Summary of Pest Conditions in the United States - 1979			
Ornamentals			
Diseases.....	166		
Insects.....	166		
Forest Disease and Insect Highlights.....	167		
Forest and Shade Trees			
Diseases.....	171		
Insects.....	171		

CORN, SORGHUM, SUGARCANE

DISEASES

SOUTHERN RUST (*Puccinia polysora*) - INDIANA - Area> status on corn: Statewide> prevalence/severity not usually recorded after August 21, 1979, due to late appearance in growing season; severity usually trace to 10%, although heavier on individual plants. Noted in 77% or 23 of 30 fields. New county records. Collection data from Zea mays (corn) during 1979, collected and determined by R.A. Schall. (R.A. Schall).

District> County	Nearest city	Prevalence/ severity	Host stage	Collection date
NE> Huntington	Bracken	1%/10%	dough	Aug 21
NW> Jasper	Collegeville	-/-	dent	Aug 30
NW> Newton	Goodland	-/-	dent	Aug 30
NW> Benton	Fowler	-/-	dough	Aug 30
NW> White	Round Grove	-/-	maturity	Sep 19
NW> La Porte	Wellsboro	-/-	all dent	Sep 20
WC> Warren	Pine Village	1%/50%	all dent	Aug 30
WC> Montgomery	Browns Valley	80%/5%	maturity	Oct 3
WC> Parke	Mansfield	90%/3%	maturity	Oct 3
SE> Franklin	Metamora	10%/trace	all dent	Sep 11
SE> Dearborn	Guilford	70%/10%	all dent	Sep 11
SE> Jefferson	Bellevue	-/-	all dent	Sep 11
SE> Clark	Marysville	95%/10%	all dent	Sep 12
SE> Jennings	Mayden	-/-	maturity	Sep 12
SC> Jackson	Uniontown	-/-	dent	Sep 12
SC> Lawrence	Hartleyville	-/-	maturity	Oct 5
NC> St. Joseph	Pine	5%/trace	maturity	Sep 20
NC> Marshall	Argos	5%/trace	maturity	Sep 20
NC> Fulton	Kewanna	10%/trace	maturity	Sep 20
NC> Carroll	Deer Creek	50%/10%	maturity	Sep 21
C> Howard	Ridgeway	10%/trace	all dent	Sep 21
C> Clinton	Hillisburg	-/-	all dent	Sep 21
C> Boone	Whitestown	10%/trace to 1%	maturity	Sep 21
SW> Knox	Iona	-/-	maturity	Oct 4
SW> Gibson	East Mount Carmel	-/-	maturity	Oct 4
SW> Warrick	Dayville	-/-	maturity	Oct 5

SMALL GRAINS

DISEASES

SPECKLED LEAF BLOTCH (*Septoria tritici*) - KANSAS - First of season. District> County= prevalence on wheat March 11: NE> Riley= 20% in 1 field. (T. Sim, IV).

SOIL-BORNE WHEAT MOSAIC VIRUS - OKLAHOMA - District> County= status on wheat week of March 10: EC> Okmulgee= confirmed from 'Vona' wheat. (M. Brakkee). KANSAS - First of season. Symptoms appeared as temperatures warmed and growth began. District> County= status on wheat March 10: SC> Edwards= trace. (T. Sim, IV).

INSECTS

GREENBUG (*Schizaphis graminum*) - NEW MEXICO - District> County= status on wheat and barley: SE> Eddy= heavy in Cottonwood area, some controls applied. (B. Campbell).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEW MEXICO - District> County= status on forage legumes: SE> Eddy= heavy in Artesia area. Some fields treated. (B. Campbell). MISSOURI - District> County= eggs per 0.09 sq m of forage legumes: E> Perry= 149, Washington= 392, Crawford= 357, Franklin= averaged 311.3, St. Charles= averaged 383.3, SE> Cape Girardeau= averaged 621, NC> Chariton= averaged 28, and NW> Ray= averaged 88. (R.E. Munson). NORTH CAROLINA - District> County= status on alfalfa: Central Piedmont> Wake= egg hatch underway, larvae on southern-facing slopes in 4 fields, little damage. (T.N. Hunt).

EGYPTIAN ALFALFA WEEVIL (*Hypera brunneipennis*) - ARIZONA - District> County= larvae and adults per 100 sweeps of alfalfa week of March 6: C> Maricopa= 44-1,200 and 5-20 and SW> Yuma= 20-230 and 10-50 (P. Gomez); currently: C> Maricopa= 3-500 combined, Pinal= 730 and no data, and SW> Yuma= 1-100 and 1-50 (J. Childers et al.).

PEA APHID (*Acyrtosiphon pisum*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa week of March 6: SW> Yuma= 300-400. (P. Gomez). NEW MEXICO - District> County= counts per 25 sweeps of alfalfa: SE> Chaves and Eddy= light to moderate, averaged less than 20 in most fields. (B. Campbell).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - NEVADA - District> County= status of this species and/or PEA APHID (*Acyrtosiphon pisum*): S> Clark= averaged 20-25 per stem on unspecified hectares of recently grazed hay alfalfa in Sandy Valley. Treatments to be applied. (Hammond). New county records. UTAH - District> County= collection data from alfalfa: C> Sanpete at Gunnison and Juab at Mona= both collected July 29, 1977, by G.F. Knowlton, R. Ronnenkamp, and M. Kennedy, determined by M.B. Stoetzel. (G.F. Knowlton, J.B. Karren).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - District> County= immatures and adults per 100 sweeps of alfalfa: C> Maricopa= 100 and SW> Yuma= 800. (J. Childers et al.). NEW MEXICO - District> County= status on alfalfa: SE> Lea= heavy in 2 young fields around Hobbs and Lovington. (L. Gholson).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - District> County= adults per 100 sweeps of alfalfa: C> Pinal= 100. (J. Childers et al.).

BROWN WHEAT MITE (*Petrobia latens*) - NEW MEXICO - District> County= counts on alfalfa: SE> Chaves and Eddy= isolated heavy populations noted. (B. Campbell).

SOYBEANS

INSECTS

GRAPE COLASPIS (*Colaspis brunnea*) - ARKANSAS - Survey for overwintering larvae in harvested soybean fields. Soil core sampled (diameter 10 cm) from 12 sites in each field. (M.A. Mayse).

District> County	Larvae per 12 cores at depth of		Field number
	9-18 cm	18-23 cm	
NE> Clay	8	3	1
NE> Clay	16	13	2
NE> Clay	125	34	3
NE> Clay	0	0	4

POTATOES, TOMATOES, PEPPERS

DISEASES

TOMATO LATE BLIGHT (*Phytophthora infestans*) - FLORIDA - District> County= status on tomatoes: S> Dade= widely scattered but locally moderate in Homestead area. (K. Pohronezny, J. Francis).

TOMATO BACTERIAL SPOT (*Xanthomonas vesicatoria*) - FLORIDA - District> County= status on tomatoes: S> Dade= damaging levels in Homestead area. (K. Pohronezny, J. Francis).

INSECTS

TOMATO PINWORM (*Keiferia lycopersicella*) - FLORIDA - District> County= status on tomatoes: S> Dade= population especially light for time of year in Homestead area, may indicate number of fields being disced instead of totally abandoned. (K. Pohronezny, J. Francis).

BEANS AND PEAS

DISEASES

WHITE MOLD (*Sclerotinia sclerotiorum*) - FLORIDA - District> County= status on beans: S> Dade= probably most serious problem with important postharvest implications in Homestead area. (K. Pohronezny, J. Francis).

BEAN RUST (*Uromyces phaseoli* var. *typica*) - FLORIDA - District> County= status on beans: S> Dade= sporadic, locally significant in Homestead area. (K. Pohronezny, J. Francis).

INSECTS

VEGETABLE LEAFMINER (*Liriomyza sativae*) - FLORIDA - District> County= status on beans: S> Dade= nearly free in relatively isolated fields, parasites provided control. Heavier in other fields surrounded by multiple vegetable plantings. (K. Pohronezny, J. Francis).

DECIDUOUS FRUITS AND NUTS

INSECTS

PEAR PSYLLA (*Psylla pyricola*) - WASHINGTON - District> County= status on pear: C> Yakima= adults found on trees by beating tray at Zillah, February 29; eggs laid on pear spurs at Buena, Parker, Parker Heights, and west Wapato, March 3. (R. Britt).

OTHER TROP. & SUBTROP. FRUITS

INSECTS

FLORIDA WAX SCALE (Ceroplastes floridensis) - FLORIDA - New host record for State. District> County= collection data from Manilkara zapota (sapodilla) plant: S> Dade= all stages in northwestern Miami, March 4. (A.B. Hamon).

SMALL FRUITS

INSECTS

A WEEVIL (Otiorhynchus rugosostriatus) - ILLINOIS - New county record. District> County= collection data: NE> Cook= at residence in Elk Grove Village, March 8, 1979, collected by S. Rachesky, determined by J.K. Bouseman. (K.D. Black).

ORNAMENTALS

INSECTS

A DIASPIDID SCALE (Odonaspis penicillata) - FLORIDA - New county record. District> County= collection data from Bambusa vulgaris (a bamboo): C> Marion= all stages heavily infested clump in urban area of Eastlake Weir, February 6, 1980, collected by F. McHenry and A. Bentley, determined by A.B. Hamon. (F. McHenry, A. Bentley).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KANSAS - New county records. District> County= collection data: NE> Brown= from Pinus nigra (Austrian pine) at highway right-of-way near Fairview, about September 5, 1979, by M. Robinson; SE> Montgomery= from Pinus sylvestris (Scotch pine) in yard near Dearing, November 19, 1979, by G.A. Clark, both determined by G.A. Clark and M. Robinson; and NE> Doniphan= from Austrian pine in highway rest area near Highland, January 4, 1980, by T. Sim, IV, determined by L.D. Lash and T. Sim, IV. (T. Sim, IV).

ILLINOIS - New county records for pinewood nematode. District> County= collection data: NW> Henry= collected from mature Pinus spp. (pines) that died in summer 1979 in plantation planting near Andover, October 10, 1979, by J.E. Appleby; and E> Champaign= juveniles and adults moderate on Pinus sylvestris (Scotch pine) tree that died in fall of 1979, in university campus landscape planting at Champaign, collected January 9, 1980, by J.E. Appleby, determined by R.B. Malek and E.G. Jordan. New host record for State. District> County= collection data from Pinus virginiana (Virginia pine) and Pinus banksiana (Jack pine): SE> Pope= from trees that died in fall of 1979, in plantation planting at agricultural research center near Dixon Springs, January 24 and 30, 1980, respectively, by J.E. Appleby and M. Farris. Both determined by R.B. Malek. (E.G. Jordan).

FLORIDA - New county record for pinewood nematode. District> County= collection data: C> Marion= 8 larvae and 8 adult females collected from Pinus taeda (loblolly pine) in roadside planting at McIntosh, February 27, 1980. Larvae collected from Pinus palustris (longleaf pine) in Ocala National Forest 6 km

south of junction at State Highway 19 and State Highway 314, February 27. Fourteen pinewood nematode larvae and 2 females collected from Pinus clausa (sand pine) in Ocala National Forest at Mill Dam recreation area, March 5, 1980. All collected by R.P. Esser and K.J. Harkcom. All determined by R.P. Esser. Pinus palustris and Pinus clausa are new host records for United States. (R.P. Esser, K.J. Harkcom).

INSECTS

A DIASPIDID SCALE (Diaspidiotus coniferarum) - FLORIDA - New county record. District> County= collection data from Juniperus virginiana (eastern red-cedar): C> Pinellas= all stages moderately infested all plants at St. Petersburg, January 25, 1980, collected by K. Hickman, determined by A.B. Hamon. Some twig dieback. (K. Hickman).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - CALIFORNIA - First emergence in mid-February. District> County= adult averages on Pinus radiata (Monterey pine) February 25: Southern California> San Diego= 2 active on stems and growing tips of tree at San Diego in La Mesa area. (C.S. Papp).

A CERAMBYCID BEETLE (Rhagium inquisitor) - OKLAHOMA - New county record. District> County= collection data from Pinus sp. (pine): SE> Pushmataha= 2 adults collected under bark of dead tree near Moyers, February 19, 1980, by J.M. Christensen, determined by D.C. Arnold. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - FLORIDA - District> County= average per animal in small beef herd: C> Alachua= 8 at Micanopy. (D. Simon).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASSBUGS (Labops spp.) - NEW MEXICO - District> County= status on forage legumes: NW> McKinley= eggs hatching in areas where snow has melted on Zuni Indian Reservation. No noticeable damage. (M. Trujillo).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States March 2-8. No cases confirmed in portion of eradication zone in Republic of Mexico. Total of 79 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 4,926,300, all in Texas. Total of 164,877,540 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - LEAFMINER FLIES (Liriomyza spp.) - Island= status on okra: Oahu= severe larval infestation and foliar damage on 0.4 ha at Kahuku, almost all leaves heavily mined. (L.M. Nakahara).

CORRECTIONS

CPPR 3(10):75 and 77 - BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - Earlier record reported for Sevier County. Change "... at Richfield, September 18, 1977, by R. Ronnekamp and M. Kennedy. Determined by G.F. Knowlton. (Knowlton)." to "... at Richfield, July 29, 1977, by G.F. Knowlton, R. Ronnekamp, and M. Kennedy. Determined by M.B. Stoetzel. (G.F. Knowlton, J.B. Karren).". (G.F. Knowlton).

CPPR 5(7):145 - CARMINE SPIDER MITE (Tetranychus cinnabarinus) should read A SPIDER MITE (Tetranychus ludeni). (L.M. Nakahara).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 3/3-9, BL - ARMYWORM (Pseudaletia unipuncta) 5, BLACK CUTWORM (Agrotis ipsilon) 5, VARIEGATED CUTWORM (Peridroma saucia) 5. CALIFORNIA - Bellota, 3/10, BL - Armyworm 11, variegated cutworm 1. Manteca, 3/10, temp. 5.6-22°C, BL, Armyworm 1, GRANULATE CUTWORM (Feltia subterranea) 1, variegated cutworm 1. FLORIDA - Gainesville, 3/6-12, BL - Black cutworm 5, SALTMARSH CATERPILLAR (Estigmene acrea) 16, granulate cutworm 20, armyworm 4.

DETECTION

NEW COUNTY RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KANSAS - Brown, Montgomery, and Doniphan; ILLINOIS - Henry and Champaign; FLORIDA - Marion. (p. 162-163).

SOUTHERN CORN RUST (Puccinia polysora) - INDIANA - See page 159.

INSECTS

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - UTAH - Sanpete and Juab. (p. 160).

A CERAMBYCID BEETLE (Rhagium inquisitor) - OKLAHOMA - Pushmataha. (p. 163).

A DIASPIDID SCALE (Diaspidiotus coniferarum) - FLORIDA - Pinellas. (p. 163).

A DIASPIDID SCALE (Odonaspis penicillata) - FLORIDA - Marion. (p. 162).

A WEEVIL (Otiorhynchus rugosostriatus) - ILLINOIS - Cook. (p. 162).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Coniella granati</u> (Sacc.) Petr. & Syd. a fungus Det. P.M. Grosser	imperfect	Netherlands	Hoboken	P. Grosser	NJ
<u>Phyllosticta</u> sp. a leaf spot Det. F. Matthews	imperfect	Republic of China	San Francisco	S. Waite	CA
<u>Aximogastra</u> sp. a eurytomid wasp Det. E.E. Grissell	adult	Mexico	New Orleans	P. Courneya	FL
<u>Camponotus rectangularis</u> Emery an ant Det. D.R. Smith	adult	Mexico	New Orleans	N. Kwon	FL
<u>Ceroplastes japonicus</u> Green a soft scale Det. S. Nakahara	adult	People's Republic of China	San Francisco	S. Waite	CA
<u>Niphaes</u> sp. a weevil Det. D.M. Anderson	larval	Japan	Philadelphia	R. Washburn	--
<u>Orthotomicus suturalis</u> (Gyll.) a scolytid beetle Det. D.M. Anderson	adult	West Germany	Charleston	B. Edmondson	--
<u>Sphaerotermea sphaerophorax</u> a termite Det. D.A. Nickle	adult	Gabon	New Orleans	B. Walker	USA

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(Continued from page 156)

ORNAMENTALS

DISEASES

CROWN GALL (Agrobacterium tumefaciens) in NEW MEXICO affected daisy chrysanthemums at a nursery at Las Cruces, Dona Ana County. All plants were destroyed.

INSECTS

In January, SADDLEBACK CATERPILLAR (Sibine stimulea) in CALIFORNIA was active on Areca palm in the Southern Coast District with 15 larvae per stem. This is the second report outside of quarantine conditions in the State.

BEET ARMYWORM (Spodoptera exigua) in FLORIDA was a problem during spring and fall on commercial chrysanthemums in Lee and Manatee Counties; treatments were needed. Beet armyworm was also economic in the fall on Gypsophila in these same areas.

In November, FLORIDA FERN CATERPILLAR (Callopistria floridensis) was found in the Southern Coast District of CALIFORNIA on Boston Ferns with an average of 120 larvae per stem.

BAGWORM (Thyridopteryx ephemeraeformis) larvae in OKLAHOMA were hatching in Jefferson County by May 20, about 2 weeks later than normal. Heavy infestations were present on evergreens in some areas by the first of June and in many areas through August. Pupation was almost complete and adult males began emerging the second week of September in the north-central area.

In January, a TORTRICID MOTH (Amorbia cuneana) in CALIFORNIA was found burrowing into tips of Carpobrotus edulis (Ice-plant) in the Northern Coast District. This is a new host record.

During spring, treatments were needed to control VEGETABLE LEAFMINER (Liriomyza sativae) in FLORIDA on chrysanthemums at Stuart, Martin County; Fort Myers, Lee County; and Bradenton, Manatee County. Populations were much heavier in the fall, attaining levels as high as any in the last 3 years. This leafminer attained moderate populations in the spring and was heavy in the fall on Gypsophila farms in Manatee and Lee Counties.

A LEAFMINER FLY (Liriomyza trifolii) in NEW MEXICO caused extensive damage to foliage of chrysanthemums in greenhouses in the Albuquerque area, Bernalillo County. This pest is difficult to control.

CITRUS MEALYBUG (Planococcus citri) in SOUTH CAROLINA has been a major problem in several commercial greenhouses.

TEA SCALE (Fiorinia theae) in SOUTH CAROLINA caused considerable problems in nurseries. Shipments were delayed in some cases.

EUONYMUS SCALE (Unaspis euonymi) in SOUTH CAROLINA continued to be a problem on 80-90% of the euonymus observed.

In April, SOLANACEOUS TREEHOPPER (Antianthe expansa) in CALIFORNIA was observed in large numbers feeding on jasmine in the Southern Coast District. The growing tips of plants were heavily infested. This is an unusual host.

AZALEA LACE BUG (Stephanitis pyrioides) in SOUTH CAROLINA was present on 95% of the azaleas inspected.

TWOSPOTTED SPIDER MITE (Tetranychus urticae) in FLORIDA was one of the biggest problems in the nursery production of woody ornamentals. Populations were greater than usual during the fall season on commercial farms near Fort Myers. Twospotted spider mites were present but not economic on Gypsophila in Lee and Manatee Counties.

FOREST DISEASE AND INSECT HIGHLIGHTS 1/

Eastern Conditions

DISEASES

FUSIFORM RUST (Cronartium fusiforme) was the most serious disease of the slash pine and loblolly pine resource. Millions of hectares of pine in the South are infected with stem cankers.

Well managed integrated control programs for DUTCH ELM DISEASE (Ceratocystis ulmi) demonstrated that annual elm mortality can be significantly reduced. Many areas of communities with control programs sustained heavy damage.

OAK WILT (Ceratocystis fagacearum) continued its slow spread into previously uninfected areas of the East. The causal fungus was also implicated in the death and decline of live oaks in Texas. The perennial activity of oak wilt resulted in the continuation of quarantine regulations and the enactment of new ones.

New disease centers of both the European and North American strains of SCLERODERRIS CANKER (Gremmeniella abietina) were found, but these centers were generally located in counties where the disease was previously reported. Quarantines in NEW YORK and VERMONT remained in effect.

WHITE PINE BLISTER RUST (Cronartium ribicola) was the most damaging disease of white pine in the East. However, with proper site selection and use of resistant stock, land managers can successfully grow white pine.

Diebacks and declines, mostly due to unknown causes, injured various eastern hardwoods, including ash, oak, maple, paper birch, and walnut.

Mortality caused by PITCH CANKER (Fusarium lateritium f.sp. pinii) decreased to moderate levels in many pine plantations, but severe damage was reported in FLORIDA seed orchards.

1/ The following summary is the highlights section from the "Forest Insect and Disease Conditions in the United States - 1979" which was compiled and published by the Forest Service, U.S. Department of Agriculture. Copies of the complete annual summary are available upon request from the Regional Forester or Area Director in your area. Addresses of the regional offices may be found on page 170 in this issue of the CPPR.

Weather conditions caused serious tree losses at many locations in the South. Among the damaging agents were winter drying, snow, ice, drought, tornadoes, and hurricanes.

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) was found in several new locations in the United States. This nematode, which was originally thought to be introduced from Japan where it is epidemic in forest stands, is now believed to be a native pest to the United States.

INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana), GYPSY MOTH (Lymantria dispar), and SOUTHERN PINE BEETLE (Dendroctonus frontalis) were the most important forest insect pests in the eastern United States. Hectares infested by the spruce budworm dropped 14% from 1978 (about 3,116,090 ha to about 2,670,930 ha). Nevertheless, damage was heavier in all States except MAINE.

Gypsy moth defoliation dropped substantially from 1978. The 264,665 ha defoliated represents a 49% decrease from the 514,758 ha recorded last year. Except for VERMONT, defoliation was heavier in NEW ENGLAND but dropped in NEW YORK, NEW JERSEY, and PENNSYLVANIA.

In the South, southern pine beetle exploded. Heaviest losses occurred in SOUTH CAROLINA, GEORGIA, ALABAMA, and MISSISSIPPI, where 47,300 million board feet of sawtimber and 517,400 cords of pulpwood were salvaged. Despite this increase in activity, TEXAS and LOUISIANA, scenes of extensive beetle kills in the past, reported very few infestations.

Other noteworthy insect outbreaks included FOREST TENT CATERPILLAR (Malacosoma disstria) in ALABAMA, LOUISIANA, VIRGINIA, MAINE, and MINNESOTA; INTRODUCED PINE SAWFLY (Diprion similis) in Blue Ridge Parkway area of NORTH CAROLINA; OAK LEFTIER; and CANKERWORMS. Additionally, the BALSAM WOOLLY ADELGID (Adelges piceae) was discovered on Mount Rogers in southern VIRGINIA. This pest now infests all natural stands of Fraser fir in the TENNESSEE and Virginia portion of the tree's range.

Western Conditions

DISEASES

The DWARFMISTLETOES (Arceuthobium spp.), as in previous years, caused serious losses to commercial conifers in the West and ALASKA. The major impact of this group of diseases is growth reduction. Over 509,702.4 cu m of wood are lost to dwarfmistletoes each year in the Southwest. Forty-two percent of the host type in OREGON and WASHINGTON is infected. Field surveys and computer yield programs were used to determine economically feasible management strategies for dwarfmistletoe-infected stands. The incorporation of mistletoe control procedures into silvicultural prescriptions is becoming more common.

Root diseases accounted for major tree losses in most western areas. The majority of damage was attributed to LAMINATED ROOT AND BUTT ROT (Poria weirii), CONIFER ROOT AND HEART ROT (Fomes annosus), SHOESTRING ROOT ROT (Armillaria mellea), and BLACK STAIN ROOT DISEASE (Verticicladiella wagnerii). On certain sites more than 25% of the trees are infected with conifer root and heart rot. Observations suggest that root disease problems are generally becoming more serious.

Needle diseases were more visible in many locations, but incidence declined in the Pacific Northwest. There may be growth losses in situations of extreme or repeated defoliation.

Winter injury was very common throughout the West and was the most spectacular tree-damaging agent in the Northwest. The severity of injury was great enough in some cases to cause mortality; seedlings often suffered the most damage.

Light to moderate damage from DAMPING OFF (Pythium spp.), water molds, GRAY MOLD BLIGHT (Botrytis cinerea), and low temperatures was reported in many tree nurseries.

INSECTS

In the West, MOUNTAIN PINE BEETLE (Dendroctonus ponderosae) and SPRUCE BUDWORM (Choristoneura fumiferana) continued as the most significant forest insects.

Mountain pine beetle activity was variable, increasing in some areas and declining in others. The Intermountain Region showed some of the most dramatic increases with over five million lodgepole pines lost in central IDAHO and WYOMING. The beetle continued to be the most destructive insect in the Rocky Mountain Region where widespread ponderosa pine mortality occurred along the COLORADO Front Range and in the Black Hills of SOUTH DAKOTA. In the Northern Region, beetle activity increased in MONTANA but decreased in northern IDAHO. Abnormally cold temperatures served to reduce the number of successfully attacked trees in many areas.

Spruce budworm activity was also mixed. In northern IDAHO and western MONTANA, defoliated hectares dropped 10% from 1978, but infestation continued severe on Colorado's Front Range. In the Southwest, infested hectares increased 70%, with heaviest damage occurring on the Grant Canyon National Park and the Kaibab and Carson National Forests. The Intermountain Region saw budworm defoliation increased by 101,172 ha with the Salmon, Targhee, and Boise National Forests among areas hardest hit. In the Pacific Northwest, budworm-defoliated hectares doubled to 161,875 ha with damage heavy on the North Cascades, Okanogan National Forest, and Warm Springs Indian Reservation.

WESTERN PINE BEETLE (Dendroctonus brevicomis) caused widely scattered mortality throughout the Southwest and CALIFORNIA. In the Pacific Northwest, activity increased in eastern WASHINGTON but declined in OREGON. Losses in the Intermountain Region were minimal.

DOUGLAS-FIR TUSSOCK MOTH (Orgyia pseudotsugata) defoliation dropped off sharply in the Southwest and also declined in CALIFORNIA. In the Rocky Mountains, damage was confined to urban areas of the Front Range. Populations were low in MONTANA and the Pacific Northwest.

In ALASKA, the SPRUCE BEETLE (Dendroctonus rufipennis) dramatically increased from 99,998.2 ha infested in 1978 to about 150,000 ha in 1979. Large ASPEN TORTRIX (Choristoneura conflictana) populations remained high for a second consecutive year.

REGIONAL AND AREA OFFICE ADDRESSES

U.S. FOREST SERVICE

U.S. Forest Service
Federal Building
Missoula, MT 59807

U.S. Forest Service
Folwell Avenue
St. Paul, MN 55108

U.S. Forest Service
P.O. Box 25127
Lakewood, CO 80225

U.S. Forest Service
P.O. Box 365
Delaware, OH 43015

U.S. Forest Service
Federal Building
517 Gold Avenue, SW
Albuquerque, NM 87102

U.S. Forest Service
P.O. Box 5895
Asheville, NC 28803

U.S. Forest Service
Federal Building
324-25th Street
Ogden, UT 84401

U.S. Forest Service
2500 Shreveport Highway
Pineville, LA 71360

U.S. Forest Service
630 Sansome Street
San Francisco, CA 94111

U.S. Forest Service
1720 Peachtree Road, NW
Suite 800
Atlanta, GA 30309

U.S. Forest Service
P.O. Box 3623
Portland, OR 97208

U.S. Forest Service
Federal Office Building
P.O. Box 1628
Juneau, AK 99802

U.S. Forest Service
370 Reed Road
Broomall, PA 19082

U.S. Forest Service
80 Daniels Street
Portsmouth, NH 03801

FOREST AND SHADE TREES

HIGHLIGHTS

BLACK POPLAR SHOOT BLIGHT was reported for the first time from California. EUROPEAN PINE SHOOT MOTH was detected in Oregon on new properties in 1979, but not on properties found in 1978. WESTERN SPRUCE BUDWORM increased slightly in Oregon. JACK PINE BUDWORM is expected to continue increase in Michigan. PINE SPITTLEBUG caused damage throughout Pennsylvania and death of trees in parts of Lower Peninsula of Michigan. Delimiting surveys for WINTER MOTH in Oregon continued. BIRCH CASEBEARER severely defoliated birch in New Hampshire for the first time in years. If egg survival is high, EASTERN TENT CATERPILLAR populations in southern New Hampshire in 1980 are expected to be larger than the large populations of 1979.

DISEASES

An infection of SCLERODERRIS CANKER (Gremmeniella abietina) in NEW HAMPSHIRE was first discovered on October 12, 1978, on Pinus resinosa (red pine) at Jefferson, Coos County. Five trees were found to be infected. This infection has been monitored closely during 1979. There is no indication at present that the infection has spread from the original site of discovery.

BLACK POPLAR SHOOT BLIGHT (Venturia (Pollaccia) populina) in CALIFORNIA caused by the imperfect stage Pollaccia elegans was observed on Populus spp. (poplars) in the Central Coast and Delta Districts in early May. This was the first report from the State although field evidence indicated the disease may have been present for the past 10-20 years. See CPPR 4(43):842.

DUTCH ELM DISEASE (Ceratocystis ulmi) in WISCONSIN continues to kill thousands of elms annually throughout the State. Of 1,906 elm samples processed, 1,569 were positive for Dutch elm disease.

VERTICILLIUM WILT (Verticillium albo-atrum) in WISCONSIN appeared to be more prevalent on maple this year than in some past years, but still less significant than MAPLE DECLINE, which is the number one problem on maple in the State.

INSECTS

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) in SOUTH CAROLINA damaged about 5,000 cords of timber resulting in an estimated \$60,000 loss.

Detection surveys utilizing pheromone traps for EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) in OREGON were concentrated in the western area, particularly the northern Willamette Valley area. A total of 630 traps was in service during the moth flight period. Traps were provided for 139 nurseries, 61 Christmas tree growers, and 47 residential or other type properties. Moths were taken on 10 properties in Benton and Lane Counties. Three new properties were found infested, 2 nurseries (1 in Sandy, Clackamas County, and 1 in Portland, Multnomah County) and a tree farm at Woodburn, Marion County. All these properties and those found infested in 1978 received 3 applications of insecticides during the moth flight period. No moths were caught in traps on the 12 properties found infested in 1978. First male moths were collected in eastern Oregon, Umatilla County, on May 28. On the westside, first emergence was June 1 in Benton County.

AN OLETHREUTID MOTH (Rhyacionia sp.) in NEW MEXICO was light to moderate on pinyon pine growing on about 2,000 ha along Forest Service Road 137, El Rito Ranger District, Carson National Forest.

Defoliation of Douglas-fir (Pseudotsuga menziesii) and true firs (Abies spp.) in OREGON by WESTERN SPRUCE BUDWORM (Choristoneura occidentalis) increased slightly. Eight infestation centers, totaling 11,570 ha, were found statewide. Hectares of defoliation on the Warm Springs Indian Reservation, Wasco County, more than doubled. A total of 13,937 ha on the reservation was treated during June and July. Mortality rate was 95% on treated plots.

Population of JACK PINE BUDWORM (Choristoneura pinus) in MICHIGAN generally remained low but was rising slightly over previous years in the Upper Peninsula and the upper half of the Lower Peninsula. One area of defoliation covering 2,023 ha was observed near Baldwin. The rising trend is expected to continue.

In July, PANDORA MOTH (Coloradia pandora) in CALIFORNIA actively infested 4,046.9 ha of Jeffrey pine in the Inyo National Forest in the High Desert District. The center of infestation is 72 km north of Bishop in the area of Lookout Mountain. Many trees were completely defoliated. This insect has a 2year cycle and 1980 will be a year of emergence with defoliation expected again in the spring of 1981. Collected specimens contained nuclear polyhedrosis viruses which may control the population.

Larvae of a GELECHIID MOTH (Exoteleia burkei) in CALIFORNIA were feeding on growing tips of Pinus radiata (Monterey pine) in the High Desert District in April; pupae were also present.

In March, larvae of SILVERSPOTTED TIGER MOTH (Halisidota argentata) in CALIFORNIA were heavy on limbs of Colorado blue spruce in the Northern Great Basin District.

PINE SPITTLEBUG (Aphrophora parallela) in DELAWARE continues to be abundant on pines throughout the State during May and early June. Nymphs and adults caused extensive feeding damage to Scotch pine throughout PENNSYLVANIA from May to July. Populations in MICHIGAN were unusually high on Scotch pine in the Lower Peninsula. In several locations large trees were killed by a second year of infestation.

A MARGARODID SCALE (Matsucoccus acalyptus) in NEW MEXICO moderately infested pinyon growing on about 2,000 ha in Cibola National Forest, Magdalena Ranger District.

COTTONWOOD LEAF BEETLE (Chrysomela scripta) populations in NEW MEXICO were heavier and more widespread in 1979 than in previous years on cottonwood and poplar trees in Bernalillo and Sandoval Counties. Cottonwood leaf beetle was especially serious on tree farms in this area.

Adults of ELM LEAF BEETLE (Pyrrhalta luteola) in OKLAHOMA were common by late April and larvae were present by late May. Damage was heavy, as usual, on Siberian elms in many areas during July and August.

Larval surveys for the WINTER MOTH (Operophtera brumata) in OREGON have revealed that this geometrid feeds on a wide variety of broadleaved hosts including a number of rosaceous trees which are extensively utilized in

landscape plantings. Favored hosts of winter moth supporting substantial larval numbers were flowering plum, cherry, crabapples, elm, and maple. Other hosts include hawthorn, linden, birch, lilac, rose, caneberries, and rhododendron. First hatch on preferred hosts was noted in Washington and Multnomah Counties on March 21. The known infested area is several hundred square kilometers in extent and encompasses western Multnomah County, eastern Washington County, extreme eastern Yamhill County and a small portion of northwestern Clackamas County. Delimiting surveys are still underway.

Adults of SPRING CANKERWORM (*Paleacrita vernata*) in OKLAHOMA were active by the middle of March and larvae were reported by the middle of April. Heavy, widespread damage to elms, oaks, and hackberry occurred over the eastern half of the State from mid-April to mid-May.

High numbers of FALL WEBWORM (*Hyphantria cunea*) in WASHINGTON were present in ornamental and shade trees throughout the western area. Some areas reported damage of 10-20% to foliage. Light to moderate infestations were noted on shade trees in Rio Arriba, Taos, and San Juan Counties, NEW MEXICO. Larvae were causing heavy damage to hardwoods in Perry, Cumberland, Dauphin, York, and Adams Counties, PENNSYLVANIA, in August.

FALL WEBWORM (*Hyphantria cunea*) adults in NEW HAMPSHIRE, based on direct observation and light trap collections, were very low in 1979; adults averaged only 2 per trap, compared to 50-60 per trap in 1978. Therefore, a year of greatly reduced infestation was predicted and did occur. Webs averaged less than 1 per 161 road km in most areas of the State, even on favored host plants. Only 2 noticeable infestations were found in 1979, 1 in Greenfield, Hillsborough County, where there were 2-5 webs per tree and 20-40 webs per 1.6 road km. A very heavy infestation was reported from the Isle of Shoals, off the New Hampshire coast, primarily on cherry trees. It is possible webworm adults were blown to the island where they oviposited on cherry trees.

BIRCH CASEBEARER (*Coleophora serratella*) in NEW HAMPSHIRE caused nearly total defoliation of white birch trees in northern Coos County, especially along the Androscoggin River south of Errol. This is the first time in several years that severe defoliation has been noticeable on birch infested by this insect. Populations will be monitored in succeeding years.

Larvae and pupae of LARCH CASEBEARER (*Coleophora laricella*) in PENNSYLVANIA were abundant on Japanese larch in York County in late April and had caused 100% damage to 2 ha of Japanese larch in Cambria County on October 1.

GREEN FRUITWORM (*Lithophane antennata*), SPRING CANKERWORM (*Paleacrita vernata*), and FALL CANKERWORM (*Alsophila pometaria*) in INDIANA were widespread and numerous this year on forest and shade trees. LINDEN LOOPER (*Erannis tiliaria*) was also common; heavy flights were detected in November at sticky traps particularly in Washington and Jackson Counties, with lighter flights in the Morgan and Monroe County areas and still lighter flights southwest of the latter 2 counties.

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) eggs began hatching in southern NEW HAMPSHIRE on April 15, the same date as in 1978 and 1979. Larvae continued to hatch until April 20. Preliminary surveys in the southern area showed low to moderate infestations in most areas, agreeing with egg mass counts made in the fall of 1978. By mid-May it was clear that populations were far more abundant in 1979 than in 1978 but infestations were very local. Tents were observed as far north as Livermore in Grafton County and Conway in Carroll

County. Eastern tent caterpillar egg surveys conducted in Strafford in October and November, 1979, showed about 2-3 times as many egg masses present as in 1978, following a summer of large adult populations. Unless extensive winter kill occurs, populations are expected to be even larger than in 1979 and also more generally abundant in the southern area.

SATIN MOTH (*Leucoma salicis*) in CALIFORNIA was observed in the Northern Great Basin District on poplar in June. Larvae were spinning cocoons and pupating on ground. Trees as high as 12 m were between 70% and 80% defoliated during mid-June.

Satin moth populations in OREGON were high in Union and Wallowa Counties and completely defoliated scattered individual trees and groups of large cottonwoods near La Grande and in the Minam and Joseph areas. Overwintering larval numbers were reduced by parasites. Larvae were feeding on trees by late April, and cocoons were abundant by early July. First adults were observed on July 7.

MAPLE LEAF CUTTER (*Paraclemensia acerifoliella*) populations in Sullivan County, NEW HAMPSHIRE, increased noticeably in 1979, both in area and in amount of leaf damage. In 1977-1978, counts averaged only 0.1-1.0 larva per leaf and no browning of foliage was noticed. In 1979, counts averaged 2-5 leaf packs per leaf and 5-15 holes per leaf in most heavily infested areas. Damage was most severe in outer canopy of large trees. Noticeable browning and ragging of foliage was present in 1979, but leaf damage may have come too late to substantially affect tree growth and vigor.

A CECIDOMYIID MIDGE (*Dasineura gleditschiae*) infested the majority of honeylocust in the Yakima area of WASHINGTON, but populations were generally low in western counties.

An infestation of the GREEN PEACH APHID (*Myzus persicae*) was heavy in CALIFORNIA in April on Tabebuia rosea in the Southern Coast District.

An APHID (*Prociphilus fraxinifolii*) infestation was heavy on ash, 150 adults per leaf, in the Southern Coast District in June.

A WHITEFLY (*Tetraleurodes acaciae*), with an average of 35 nymphs and adults per leaf, was found in CALIFORNIA on desert acacia in the Low Desert District in September.

MORRILL LACE BUG (*Corythucha morrilli*) in CALIFORNIA was doing severe damage to *Baccharis pilularis*, nymphs and adults feeding on both sides of leaves, in the Central Coast and Delta Districts in July.

Brood II of the PERIODICAL CICADA (*Magicicada septendecim*) emerged along the eastern seaboard from north Georgia to upstate New York. Emergence in NORTH CAROLINA began May 4-8 in Stokes County and continued until early June. Heaviest infestations occurred in the northern half of Guilford County, all of Rockingham and Stokes Counties, the southeastern corner of Surry County, and the eastern half of Yadkin County. However, scattered infestations were observed in Stokes and Rockingham Counties and in parts of Surry, Yadkin, Forsyth, Guilford, Caswell, and Alamance Counties. Damage was insignificant, primarily consisting of twig pruning on large white oaks in the area.

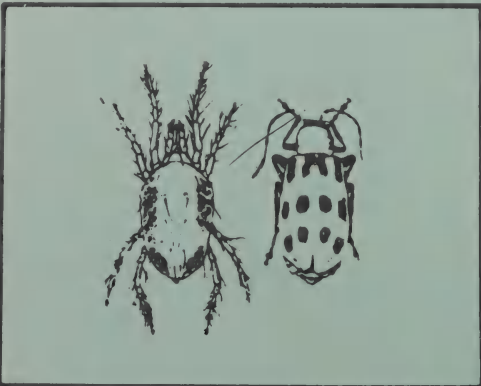
METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre



1023142879

347033NIDMBEDS R1 CPR-0001
NATIONAL AGRICULTURAL LIBRARY
CURRENT SERIAL RECORDS
BELTSVILLE MD 20705



aSB823
.7453

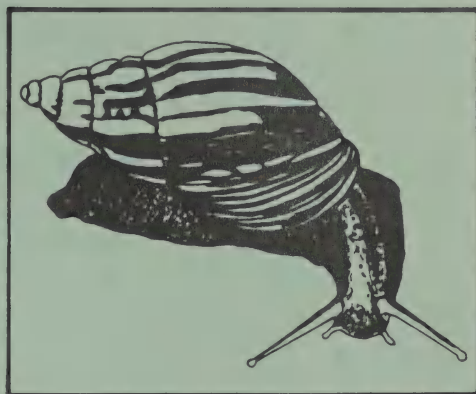
Cooperative PLANT PEST REPORT

U.S.
DEPARTMENT
OF AGRICULTURE

March 28, 1980

Vol. 5
No. 9

Animal
and Plant
Health
Inspection
Service



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

GREENBUG heavy on wheat in parts of west-central Oklahoma. (p. 180).

BLUE MOLD problems in tobacco beds in northeastern and central Florida. (p. 183).

Larval hatch of WINTER MOTH in Oregon. (p. 183).

Predictions

Potential spotty damage on seedling sorghum due to CHINCH BUG in eastern Kansas. (p. 177).

Possible early season ALFALFA WEEVIL problems in parts of midwestern Kentucky. (p. 181).

Detection

● A GELECHIID MOTH in California is new for the Western Hemisphere. (p. 184).

New county records on page 186.

Some First Occurrences of Season

BROWN WHEAT MITE, GREEN CLOVERWORM, ALFALFA CATERPILLAR, TARNISHED PLANT BUG, and IMPORTED CABBAGEWORM in Oklahoma. SPRING CANKERWORM males in Minnesota. A LADY BEETLE and COMMON GREEN LACEWING in Indiana. AN APHIDIID WASP in Oklahoma.

Special Reports

Summary of Pest Conditions in the United States - 1979

Man and Animals. (p. 188-190).

Stored Products. (p. 190).

Oriental Conifer Pest Becomes Established in Coastal California (Lepidoptera: Gelechiidae). (p. 191).

Distribution of Alfalfa Weevil (map). (p. 192).

Reports in this issue are for the week ending March 21 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane	Deciduous Fruits and Nuts
Insects.....177	Insects.....183
Small Grains	Citrus
Diseases.....178	Insects.....184
Insects.....179	Ornamentals
Forage Legumes	Insects.....184
Insects.....181	Forest and Shade Trees
Cotton	Insects.....184
Insects.....183	Man and Animals
Tobacco	Insects.....184
Diseases.....183	Households and Structures
Cole Crops	Insects.....185
Insects.....183	
General Vegetables	
Insects.....183	
Beneficial Organisms and Their Enemies	
Insects.....185	
Federal and State Programs	
Insects.....185	
Hawaii Pest Report.....186	
Light Trap Collections.....186	
Detection.....186	
Pest Interceptions of Quarantine Significance at Ports of Entry.....187	
Summary of Pest Conditions in the United States - 1979	
Man and Animals	
Insects.....188	
Stored Products	
Insects.....190	
Oriental Conifer Pest Becomes Established in Coastal California (Lepidoptera: Gelechiidae).....191	
Distribution of Alfalfa Weevil (map).....192	

CORN, SORGHUM, SUGARCANE

INSECTS

CHINCH BUG (*Blissus leucopterus leucopterus*) - KANSAS - Populations in bunchgrass much lighter than in 1979 in most counties in southeastern and east-central districts and in many counties in the northeast. Greatest potential for damage to seedling sorghum adjacent to small grains mostly (except NE district> Brown County) from NC district> Republic County to NE district> Marshall County in the north to SE district> Butler County and SW district> Sedgwick County in the south. Past growing season surveys show damage usually spotty within counties, even where surveys indicate potential for damage greatest. Problems encountered in 1980 will largely depend on effect of growing season weather conditions on rate of population increase. Overwintered chinch bug survey of bunchgrass near sorghum fields (rarely corn fields):

District> County	Average per 0.09 sq m		Number of samples in 1980
	1979	1980	
NC> Clay	3,742	1,993	7
NC> Cloud	828	1,538	-
NC> Jewell	40	350	6
NC> Mitchell	280	9	6
NC> Republic	828	1,992	7
NC> Washington	3,327	2,641	10
NC> Ottawa	299	3,733	7
C> Dickinson	2,713	3,575	8
C> Ellsworth	251	187	6
C> Lincoln	69	364	6
C> Marion	3,044	973	6
C> McPherson	1,950	2,588	10
C> Rice	244	772	6
C> Saline	412	647	9
SC> Harvey	2,622	1,152	7
SC> Reno	330	46	8
SC> Sedgwick	2,003	866	6
SC> Sumner	177	212	6
NE> Atchison	1,745	106	6
NE> Brown	6,521	1,316	6
NE> Doniphan	191	10	6
NE> Jackson	1,857	453	6
NE> Jefferson	668	18	6
NE> Leavenworth	240	7	6
NE> Marshall	3,658	705	8
NE> Nemaha	1,898	110	6
NE> Pottawatomie	2,144	424	7
NE> Riley	4,210	740	11
EC> Anderson	614	5	6
EC> Chase	1,913	165	6
EC> Coffey	1,276	19	6
EC> Douglas	465	122	7
EC> Franklin	1,819	5	6
EC> Geary	513	518	7
EC> Johnson	135	3	6

<u>District> County</u>	<u>Average per 0.09 sq m</u>		<u>Number of samples in 1980</u>
	<u>1979</u>	<u>1980</u>	
EC> Linn	1,496	13	6
EC> Lyon	1,542	25	10
EC> Miami	821	180	6
EC> Morris	1,588	207	8
EC> Osage	1,088	26	6
EC> Shawnee	255	14	6
EC> Wabaunsee	650	145	8
SE> Allen	389	13	6
SE> Bourbon	946	12	8
SE> Butler	543	175	6
SE> Chautauqua	8	52	5
SE> Cherokee	4,280	8	7
SE> Cowley	128	246	6
SE> Crawford	627	13	6
SE> Elk	71	23	4
SE> Greenwood	341	57	6
SE> Labette	1,743	29	6
SE> Montgomery	142	4	4
SE> Neosho	1,374	91	6
SE> Wilson	1,690	7	6
SE> Woodson	726	64	7

SMALL GRAINS

DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - KANSAS - District> County= status on wheat [10 cm tall]: NE> Riley= few pustules formed this spring found in 1 location. Too early to predict spread of disease for State this year. (T. Sim, IV).

SPECKLED LEAF BLOTCH (*Septoria tritici*) - KANSAS - District> County= prevalence on wheat [tillering]: SC> Sumner= 10% on 10 cm tall plants and SE> Neosho= 5% on 15 cm tall plants. (T. Sim, IV).

SOIL-BORNE WHEAT MOSAIC VIRUS - KANSAS - Symptoms faint on wheat [8-15 cm tall] in southern and eastern areas, prevalence difficult to estimate. Generally, no symptoms on wheat [tillering, 8 cm tall] west of U.S. Highway 81 in south-central area as of March 19, although few suspicious areas observed. Status on wheat (T. Sim, IV):

<u>District> County</u>	<u>Prevalence (%)</u>
EC> Geary	40
C> Marion	5
C> McPherson	5-15
SE> Butler	5-10
SE> Cowley	trace to 50
SC> Sumner	trace to 60
SC> Sedgwick	trace to 5
SC> Harvey	trace to 5

INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - TEXAS - Maximum counts per 0.3 row m of small grains March 3-10 (E.P. Boring, III):

<u>District> County</u>	<u>Counts</u>
Cross Timbers> west Shackelford	3 in field edges
Cross Timbers> Shackelford	4
Northern Low Plains> Hardeman	4

OKLAHOMA - District> County= army cutworm counts per 0.3 row m of wheat in number of fields (f) week ending March 14: SW> Caddo= 5, common in many fields in southern area; Jackson, Kiowa, and Greer= 0-5, heaviest in latter county, treatment underway; WC> Washita= 3-4, common in some parts of southern area; and NC> Garfield= 1-3 in 1f. Currently: SW> Caddo, WC> Washita, and Beckham= 5-6 in some areas with heavy damage; SW> Jackson, Greer, and Kiowa= 0-1 in 15f; C> Kingfisher= 3; NC> Garfield= none in 10f, 1-2 in 5f, 3-4 in 3f, and averaged 5 in 2f; NC> Noble, Kay, and C> Payne= 0-0.2 in most fields; and NC> Noble= averaged 2 in 1f, and 3 in another. (D.C. Arnold).

KANSAS - Army cutworm generally none to light on wheat in limited surveys in south-central and southwestern areas. District> County= status per 0.3 row m of wheat: SC> Sumner= heavy in very localized spot*, none in 4 sampling sites but averaged 5-26 at fifth site; infested area apparently limited to about 2 m in 2 adjacent rows about 9 m into field from margin. Counts on wheat [tillers formed] (R.J. Bauernfeind):

<u>District> County</u>	<u>Average per 0.3 row m</u>		<u>Number of fields</u>
	<u>Margin</u>	<u>Field</u>	
SC> Sumner	-	0-3*	2
SC> Sumner	0.1	0	1
SC> Harper	0-0.1	0	2
SC> Sedgwick	0.2	0	1
SW> Grant	-	0 to trace	3
SW> Haskell	-	0	2
SW> Stevens	-	0	1
SW> Seward	-	trace	1

GREENBUG (Schizaphis graminum) - TEXAS - Survey on wheat February 21 to March 6 (N.E. Daniels):

<u>District> County</u>	<u>Maximum per 0.3 row m</u>
Northern High Plains> Randall	15
Northern High Plains> Potter	60
Northern High Plains> Oldham	0
Northern High Plains> Deaf Smith	25
Northern High Plains> Castro	200

District> County	Maximum per 0.3 row m
Northern High Plains> Parmer	10
Northern High Plains> Hutchinson	30
Northern High Plains> Hansford	30
Northern High Plains> Sherman	400
Northern High Plains> Moore	3,000
Northern High Plains> Armstrong	0
Northern High Plains> Hartley	5
Northern High Plains> Dallam	0
Northern High Plains> Swisher	50
Northern High Plains> Briscoe	100
Northern High Plains> Floyd	10
Northern High Plains> Hale	20
Northern High Plains> Carson	30
Northern High Plains> Gray	20
Northern High Plains> Ochiltree	5
Northern High Plains> Lipscomb	0
Northern High Plains> Hemphill	0
Northern High Plains> Roberts	0
Northern Low Plains> Donley	20
Northern Low Plains> Hall	30
Northern Low Plains> Childress	0
Northern Low Plains> Collingsworth	200

Texas - Greenbug per 0.3 row m of small grains March 12 (E.P. Boring, III):

District> County	Counts
Blacklands> Collin and Hunt	heavy in many fields
Cross Timbers> Archer	10-20
Cross Timbers> Young	light to moderate
Southern Low Plains> Baylor	up to 18
Northern Low Plains> Foard	0-9 in sprayed fields
Northern Low Plains> Foard	10-35 in unsprayed fields
Northern Low Plains> Wichita	up to 110
Northern Low Plains> Wichita	9-206
Northern Low Plains> Wilbarger	0-73
Northern Low Plains> Wilbarger	0-52
Northern Low Plains> Hardeman	light to moderate

OKLAHOMA - District> County= greenbug status per 0.3 row m of wheat, unless stated otherwise, in number of fields (f) week ending March 14: WC> Washita= up to 200 in 1f, light in most fields; SW> Jackson, Greer, and Kiowa= 0-50 in 24f; NC> Garfield= 25-50 in 1 young field; and SC> Marshall= heavy on barley. Currently: WC> Beckham= up to 5,000, heavy in most fields; Washita= up to 1,000 in spots in some fields, light in most fields, some fields plowed due to infestations and dry conditions; SW> Jackson, Greer, and Kiowa= 5-176 in 15f; NC> Garfield= 150-180 in 8f and 10-125 in 12f; Noble, Kay, and C> Payne= 0-55 in fields checked; Logan and SC> Marshall= heavy; NC> Garfield and Noble= some fields treated, treatment probably not needed in latter county; and Panhandle> Texas= light. (D.C. Arnold).

AN APHID (Rhopalosiphum padi) - TEXAS - Counts per 0.3 row m of small grains, March 3-10 (E.P. Boring, III):

<u>District> County</u>	<u>Counts</u>
Northern Low Plains> Wichita	1-3
Northern Low Plains> Wichita	1-2
Northern Low Plains> Wilbarger	up to 10
Northern Low Plains> Wilbarger	1-5

OKLAHOMA - District> County= Rhopalosiphum padi per 0.3 row m, unless stated otherwise, of wheat: NC> Garfield, Noble, Kay, and C> Payne= 0-20; SW> Jackson, Greer, and Kiowa= 0-5; and SC> Pontotoc= heavy. (D.C. Arnold).

ENGLISH GRAIN APHID (Macrosiphum avenae) - OKLAHOMA - District> County= counts on wheat: NC> Garfield, Noble, and Kay= light, 1-4 per 0.3 row m in scattered fields, and EC> Muskogee and NE> Wagoner= averaged 2 per 10 sweeps. (D.C. Arnold).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - Adults per 0.3 row m of small grains March 3 (E.P. Boring, III):

<u>District> County</u>	<u>Counts</u>
Southern Low Plains> Baylor	6-8
Northern Low Plains> Foard	5-15
Northern Low Plains> Wichita	1-4
Northern Low Plains> Wilbarger	up to 12

OKLAHOMA - District> County= winter grain mite status on wheat week ending March 14: NC> Garfield= 100-150 per 0.3 row m in 1 young field, and SW> Jackson, Greer, Kiowa, and WC> Washita= light. (D.C. Arnold).

BROWN WHEAT MITE (Petrobia latens) - OKLAHOMA - First of season. District> County= counts on wheat: WC> Beckham and Washita= light in few fields. (D.C. Arnold).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - TEXAS - Area> larval status on alfalfa, March 12: Trans-Pecos> present in most fields. (C.W. Neeb). OKLAHOMA - District> County= egg averages per 0.09 sq m of alfalfa, percent infested terminals, and degree day (DD) accumulations (base 8.9°C) through March 12, if given: C> Grady= 33 on March 7, averaged 10%, and 116 DD; Payne= 44 on March 6, 3-5%, and 83.3 DD; and SC> Stephens= 123 on March 7, 10-25%, and no data. (D.C. Arnold). MISSISSIPPI - District> County= adults per sweep of crimson clover [prebloom]: Southeast & Coastal> Stone and Harrison= heavy, 10-15 in producer plantings. (M. Ellsbury).

KENTUCKY - District> County= alfalfa weevil eggs per 0.09 sq m of alfalfa March 4-5: Bluegrass> Washington= averaged 101 in stems; Midwestern (1 field each)> Simpson= 153, Todd= 27, and C> Warren= 143, light to moderate counts indicates good chance of early season problems in some fields. (J.C. Pass, C.M. Christensen).

INDIANA - District> County= alfalfa weevil eggs (average) per 15 sq cm of alfalfa March 10-11: SC> Harrison, Washington, and Jackson= 30.7-61.3 (40) in 4 fields, some with capsule. No larvae noted and no adults swept. Eggs hatched within 24 hours at room temperature, indicates last cold period not severe enough to destroy them. Growth 2-4 cm, probably reached during January and February. Current egg counts on forage legumes: SC> Jackson, Washington, and Harrison= 15 (averaged 53) in 4 fields March 17, and Jackson= ranged from 2 in field covered with chickweed, to 92. Larvae, 2nd and 3rd instars, less common than 1 per 20 stems. About 50% of eggs collected March 10 hatched by March 21 at room temperature, no further hatching anticipated. Cool temperatures prevented extensive hatch in field. (R.W. Meyer).

NORTH CAROLINA - District> County= alfalfa weevil larval status on alfalfa: C> Wake= 3rd instars fed on terminals, tip damage minor in 3 fields, averaged about 5%. Threshold levels expected to be met in Piedmont area during early April. (T.N. Hunt).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= larvae and adults per 100 sweeps of alfalfa: C> Maricopa= 60-250 and 0-4, Pinal= 482-650 and 0-38, and SW> Yuma= 0-150 and 0-50. (J. Kirkpatrick).

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= status on alfalfa week ending March 14: SC> Stephens= larvae up to 32 per 0.09 sq m in 1 fall-seeded field, much of field destroyed, and Garvin= light to moderate on seedling alfalfa. Current larvae per 0.9 sq m of alfalfa: WC> Washita and Beckham= 0-5. (D.C. Arnold). KANSAS - District> County= average per 0.09 sq m, (1 field for each count): SC> Edwards= 0.5 (ranged up to 3) none in second field; Kiowa= none in 1 field on March 9; Barber= 0.5; and Pratt= none on March 17, larvae 4-25 mm long (G.A. Salsbury).

GREEN CLOVERWORM (Plathypena scabra) OKLAHOMA - First of season. Area> status on alfalfa: SW> occasional larva noted. (D.C. Arnold).

ALFALFA CATERPILLAR (Colias eurytheme) - OKLAHOMA - First of season. District> County= status on alfalfa: C> Grady and SC> Stephens= occasional larva noted. (D.C. Arnold).

PEA APHID (Acyrtosiphon pisum) - OKLAHOMA - District> County= counts on alfalfa week ending March 14: SC> Coal= up to 20 per stem in 1 fall-seeded [8-10 cm tall] field in Olney area, and EC> Muskogee= light. Currently: SW> Jackson, Greer, and Kiowa= 1-5 per stem; NE> Wagoner and EC> Muskogee= averaged 2 per 10 sweeps; and C> Payne and Grady= 5-10 per 100 sweeps. (D.C. Arnold).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - District> County= counts per terminal of alfalfa week ending March 14: EC> Muskogee= up to 50 in 20% of terminals in 1 field in Webbers Falls area. Current counts per stem on Team alfalfa: EC> Muskogee= up to 100 in 1 field, and SW> Jackson, Greer, and Kiowa= 0-3. (D.C. Arnold).

COWPEA APHID (Aphis craccivora) - OKLAHOMA - District> County= counts per terminal in fall-seeded alfalfa [8-10 cm tall] week ending March 14: SC> Coal= up to 40 in spots in 1 field in Olney area. (D.C. Arnold).

TARNISHED PLANT BUG (Lygus lineolaris) - OKLAHOMA - First of season. District> County= average per 10 sweeps of alfalfa week ending March 14: SC> Coal= 1. (D.C. Arnold).

COTTON

INSECTS

COTTON LEAFPERFORATOR (*Bucculatrix thurberiella*) - ARIZONA - District> County= larvae from 25 stub cotton plants: C> Maricopa= 3-4 per leaf and Pinal= 1-2 per leaf. (J. Kirkpatrick, W. Kendall).

TOBACCO

DISEASES

BLUE MOLD (*Peronospora tabacina*) - FLORIDA - District> County= status on tobacco: NE> Suwannee, Hamilton, and Columbia= present in few seedbeds, about to become economic; and C> Lake and Osceola= widespread in transplant beds, some mostly or entirely wiped out, complete loss of bed of about 30 ha at Saint Cloud in latter county. (T.A. Kucharek).

COLE CROPS

INSECTS

IMPORTED CABBAGEWORM (*Pieris rapae*) - OKLAHOMA - First of season. District> County= adult status March 9: EC> Pittsburg= active. (D.C. Arnold).

BLACK CUTWORM (*Agrotis ipsilon*) - SOUTH CAROLINA - District> County= status on cabbage March 10: S> Jasper= larvae 10 and damaged plants 10-12 in 91-row m planting near Ridgeland. (J.T. Walker).

GENERAL VEGETABLES

INSECTS

SEEDCORN MAGGOT (*Hylemya platura*) - SOUTH CAROLINA - District> County= status on onions March 14: C> Lexington= moderate to heavy on 1 ha, treatments recommended. (R.P. Griffin).

DECIDUOUS FRUITS AND NUTS

INSECTS

PEAR PSYLLA (*Psylla pyricola*) - UTAH - District> County= eggs and adults in pear orchards: E> Grand= very numerous at Moab, March 10-14 (A. Hamson) and N> Cache= active in mouth of Providence Canyon (J. Talmadge, D.W. Davis).

WINTER MOTH (*Operophtera brumata*) - OREGON - County= status on filbert: Washington= overwintering eggs began hatch. First larvae found at Tigard, March 18. Total of 99 1st instar larvae trapped on 16 sticky squares under egg-infested filbert bolts by March 20. Bud scales open at least a week before initial hatch, indicates synchronization probably not significant mortality factor on this host. (R.L. Penrose).

CITRUS

INSECTS

WESTERN TUSSOCK MOTH (Orgyia vetusta) - CALIFORNIA - District> County= status on Valencia orange March 13: Southern California> Orange= small and large larvae infested average of 25% of trees in 0.10-ha orchard, damage possible on about 10 trees and extensive on 2 trees. (L. Lilly).

ORNAMENTALS

INSECTS

A GELECHIID MOTH (Stenolechia bathrodyas Meyrick) - CALIFORNIA - New Western Hemisphere and county records. District> County= collection data from Juniperus spp.: Southern California> Los Angeles= collected from Juniperus sabina cv. tamariscifolia (savin) at Pacific Palisades, July 31, 1969, by F. Cunningham and J. Heuer, noted feeding on various hybrids of junipers. San Diego= specimens at La Jolla, February 28, 1977, by K. Sims, several dozen specimens reared; and Ventura= 4 specimens at Ventura, collection date unknown, by Hartman (no initials), reared specimens emerged August 31, 1977. All determined by T.D. Eichlin. Stenolechia species known from eastern and southeastern Asia. Stenolechia bathrodyas described from Tokyo, Japan. Unchecked, considered potentially destructive to native juniper species in United States. Larvae bored into stems and ate outside of juniper leaves at San Diego, February 20, 1980. (T.D. Eichlin).

FOREST AND SHADE TREES

INSECTS

SILVERSPOTTED TIGER MOTH (Halisidota argentata) - OREGON - Overwintering larvae apparently heavy in south-central coastal area. Area> status on Pseudotsuga menziesii (Douglas fir): Coos County from Coos Bay north to Douglas County at Reedsport= partly grown larvae prevalent. (R. Brown).

SPRING CANKERWORM (Paleacrita vernata) - MINNESOTA - First of season. Male adults observed March 18, no females emerged. (D.D. Sreenivasam).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - FLORIDA - District> County= average per animal in small beef herd: C> Alachua= 40, distinct increase; economic threshold 50 per animal. (D. Simon). MISSISSIPPI - District> County= adults on cattle: EC> Clay and Lowndes= active and light during recent warm weather. (R. Anderson). OKLAHOMA - First of season. District> County= average per head on cattle: SC> Atoka= active, less than 10. (D.C. Arnold).

HOUSEHOLDS AND STRUCTURES

INSECTS

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - KENTUCKY - First of season. District> County= status March 18: Bluegrass> Fayette= first swarmers in building. (B.C. Pass, R.A. Scheibner).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

CONVERGENT LADY BEETLE (Hippodamia convergens) - OKLAHOMA - District> County= status on wheat: WC> Washita and Beckham= larvae and adults light, NC> Garfield and Noble= adults 0-1 per 0.3 row m, and NE> Wagoner and EC> Muskogee= occasional. (D.C. Arnold).

A LADY BEETLE (Coleomegilla maculata) - INDIANA - First of season. District> County= adult status in alfalfa March 10: SC> Harrison= active in field, only 1 seen to date. (R.W. Meyer).

AN APHIDIID WASP (Lysiphlebus testaceipes) - OKLAHOMA - First of season. District> County= status on wheat: NC> Noble= adults and parasitized Schizaphis graminum (greenbug) averaged about 1 per 0.3 row m in field in Perry area, Noble and Garfield= adults light in several fields, and WC> Washita= greenbug mummies light in 1 field. (D.C. Arnold).

COMMON GREEN LACEWING (Chrysopa carnea) - INDIANA - First of season. District> County= adult status March 16: WC> Tippecanoe= 1 collected in Malaise trap. (R.W. Meyer).

FEDERAL AND STATE PROGRAMS

INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - NORTH CAROLINA - New county records. Infestation continues to be concentrated in north-central Piedmont counties with expansion southward. District> County= collection data: Central Coastal> Wilson= collected from Triticum aestivum (common wheat) at Wilson, April 9, 1979; Central Piedmont> Davidson= collected from Avena sativa (oats) at Thomasville, April 17-30; and Lee= collected from oats at Sanford, April 12. Collectors unknown and all determined by R. Galloway. (T. Hunt).

GYPSY MOTH (Lymantria dispar) - NEW HAMPSHIRE - County= eggs per mass with egg parasitism from samples taken at 0.3 m and 1.5 m levels above ground, respectively, in early March: Merrimack at Canterbury= averaged 621 with 463 per 1,530 (30%), mostly Ooencyrtus sp., and 309 per 976 (32%); and Carroll at Freedom= averaged 252 with 113 per 342 (33%) and 122 per 374 (33%) on oak and with 103 per 339 (30%) and 100 per 483 (21%) on poplar. Rate of parasitism about same (30%) at both sites, significantly fewer eggs per mass at Freedom. (T. Durkis, R. Keating).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States, March 9-15. Total of 8 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 85 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 4,949,575, all in Texas. Total of 199,102,975 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) - Island= status on tomato during February survey: Maui= heavy in few abandoned plantings in upper Omaopio and light [harvest stage] at Kihei; Kauai= serious pest at MoLoaa and Anahola. (N. Miyahira, D.T. Sugawa).

Beneficial Insect - SOUTH AFRICAN EMEX WEEVIL (Apion antiquum) - Island= status on Emex spinosa (spring emex): Maui= heavy on roadside infestations in Omaopio. Biological control effective. (N. Miyahira)

Snail Pest - GIANT AFRICAN SNAIL (Achatina fulica) - Island= status: Kauai= moderate in infested sites during February. The carnivorous snail Gonaxis quadrilateralis (a streptaxid snail) well established in Poipu area where released in 1975, about 24 snails easily recovered. (D.T. SugaWa).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 3/10-16, BL - ARMYWORM (Pseudaletia unipuncta) 5, BLACK CUTWORM (Agrotis ipsilon) 5, CABBAGE LOOPER (Trichoplusia ni) 1, VARIEGATED CUTWORM (Peridroma saucia) 21. CALIFORNIA - Bellota, 3/16, BL - Armyworm 1, variegated cutworm 1. Manteca, 3/16, 2.8-18°C, BL - Armyworm 6. FLORIDA - Gainesville, 3/13-19, BL - GRANULATE CUTWORM (Feltia subterranea) 17, SALTMARSH CATERPILLAR (Estigmene acrea) 2, YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 1. MISSISSIPPI - Stoneville, 2/6-3/20, 2BL - Armyworm 147, black cutworm 33, variegated cutworm 58, yellowstriped armyworm 4. TEXAS - College Station, 2/20-3/20, 3BL - Armyworm 6, black cutworm 0, cabbage looper 0, CORN EARWORM (Heliothis zea) 0, EUROPEAN CORN BORER (Ostrinia nubilalis) 0, FALL ARMYWORM (Spodoptera frugiperda) 0, saltmarsh caterpillar 0, TOBACCO BUDWORM (Heliothis virescens) 0, TOBACCO HORNWORM (Manduca sexta) 0, TOMATO HORNWORM (Manduca quinquemaculata) 0, yellowstriped armyworm 0.

DETECTION

NEW WESTERN HEMISPHERE RECORD

INSECTS

A GELECHIID MOTH (Stenolechia bathrodyas Meyrick) - CALIFORNIA - Los Angeles County. (p. 184).

NEW COUNTY RECORD

INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - NORTH CAROLINA - Wilson, Davidson, and Lee. (p. 185).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
adult	with wood crates of marble sills	Italy	Charleston	C. Wilson	FL
adult	on <u>Juglans</u> cuttings from mail	West Germany	Hoboken	C. Henningson	PA
larval	in reed mats from cargo	Hungary	Port Everglades	M. Connor	FL
adult	with virgin cork from cargo	Portugal	Baltimore	E. Ford	OH
adult	on <u>Ficus</u> plants from mail	Hong Kong	San Francisco	S. Waite	CA
pupal adult	in dunnage	Belgium	San Francisco	B. Spitzer	CA
larval	in wood crates of casting iron	Brazil	New Orleans	A. Short	LA
adult	on apricots and peaches from cargo	New Zealand	San Francisco	T. Torbett	CA

Crematogaster scutellaris (Olivier)

an ant

Det. D.R. Smith

Eriophyes tristriatus (Nal.)

an eriophyid mite

Det. R.L. Smiley

Giraudiella inclusa (Frauenfeld)

a cecidomyiid midge

Det. R.J. Gagne

Microplax plagiata (Fieber)

a lygaeid bug

Det. R.C. Froeschner

Pseudaonidia trilobitiformis Green

a diaspidid scale

Det. S. Nakahara

Scolytus intricatus (Ratz)

a scolytid beetle

Det. D.M. Anderson

Stenodontes sp.

a cerambycid beetle

Det. D.M. Anderson

Thrips obscuratus (Crawford)

a thrips

Det. S. Nakahara

INSECTS

FACE FLY (Musca autumnalis) in OKLAHOMA was active by early March in Osage County. Numbers were very light on cattle all season in the north-central area. Moderate to heavy populations were present in several northeastern counties during June and July. Adults were active in KENTUCKY from late April through late September. Fly populations on untreated cattle this year were about normal, at about 20 flies per animal, and had reached this level by mid-June.

Face flies in SOUTH CAROLINA were not a significant factor in 1979 based on field surveys and cattlemen concerns. Little pressure for control programs for face flies was detected compared to previous years when populations were obviously heavy. A statewide distribution survey was conducted during the summer of 1979. Face flies were found in 19 counties in the northwestern section of the State. Seven of these counties had previous reports of face flies. Twelve new county records were established. See CPPR 5(6):129.

Wet weather in August contributed to a large increase in face fly adult populations on dairy cattle in northern NEW HAMPSHIRE, particularly in the western area and in Coos County. Counts averaged about 30-50 flies per face in 1979, compared to 10-20 per face in 1978.

HORN FLY (Haematobia irritans) in OKLAHOMA was present on cattle from early March to late October. Counts of 500-1,000 per head were reported from scattered areas from June through September with little evidence of the usual mid-summer decline in numbers. Activity in KENTUCKY was considered to be about normal with averages on untreated cattle about 400 flies per animal over most of the season. A population peak, about 600 flies per animal, occurred in mid-September.

HOUSE FLY (Musca domestica) problems in SOUTH CAROLINA associated with poultry, dairy, and livestock operations were at very low levels compared to 1978. The low fly activity is difficult to explain since warm, moist weather conditions prevailed for most of the summer months. Only 2 house fly "emergencies" developed all year at poultry farms: One in the spring and the other in the late fall. Control cost for fly control at poultry farms range from 3 to 10 cents per bird per year. Estimates of fly control cost in a normal year for South Carolina poultrymen would range from \$500,000 to \$750,000, but the figure for 1979 would be about half that.

Surveys for adult MOSQUITOES, especially Psorophora columbiae and Anopheles quadrimaculatus in ARKANSAS during June indicated that they were unusually scarce across the Arkansas Delta. Severe weather conditions, including heavy rains and cool temperatures, were probably very important in this situation.

Mosquito populations in FLORIDA tended to be fairly light until heavy rains occurred in September, resulting in tremendous numbers of floodwater mosquitoes, with Psorophora columbiae being the most abundant species. The same rains also resulted in a big crop of saltmarsh mosquitoes, Aedes taeniorhynchus and Aedes sollicitans. As the floodwaters of September began to stagnate in October, favorable conditions for Culex nigripalpus development occurred, resulting in heavy populations of this vector of St. Louis encephalitis. The

highest counts of this mosquito were made in Highlands County where 1 trap, baited with carbon dioxide captured 10,000+ females in 1 night. Mosquito populations started declining in early November and continued to decrease the remainder of the year in the northern half of Florida.

Major emergences of biting Aedes spp. in WISCONSIN began just prior to May 30 but were confined mostly to permanent wetlands or poorly drained areas early in the summer. Extremely wet weather in August resulted in a heavy emergence of biting mosquitoes late in the month over the southern two-thirds of the State, with some northern areas, such as the Spooner region, having little rainfall and few problems late in the summer. Early season Aedes spp. and Aedes vexans populations in MICHIGAN were about normal in 1979, a reflection of near normal precipitation in the spring and summer. The 1970 mosquito populations were much higher compared to 1977 and 1978 which had subnormal spring and summer rainfall. Populations were present from early June until September in most areas of the State.

The following mosquito species accounted for more than 97% of the total females trapped in DELAWARE for 1979: Culex spp. (83.7%, may be composed of Culex salinarius, Culex pipiens, and Culex restuans), Aedes vexans (8.0%), Anopheles crucians complex (3.0%), Coquillettidia perturbans (1.7%), and Aedes sollicitans (1.0%). Anopheles walkeri and Aedes cantator, which usually contribute substantially to the pest population each year, contributed less than 1% of the total in 1979. Compared to 1978, Culex spp. increased 38%, Aedes crucians increased 1.7%, Aedes sollicitans decreased 3.5%, and Aedes vexans decreased more than 18%.

Eggs of early season floodwater mosquitoes, Aedes spp., began hatching in NEW HAMPSHIRE on March 5 in roadside ditches where water temperature was 3-4°C. Adults began emerging at the beginning of May. Total numbers were not significantly different from past years, but several species, particularly Aedes abstrusus and Aedes communis were less abundant in 1979 than in 1978. Populations of Aedes stimulans were long-lived due to rather wet weather in July and early August. Populations of Aedes vexans were generally increased this year over 1978, due to wet weather in August. Annoying numbers persisted into early September. Continued warm weather in the fall resulted in persistent annoyance by Anopheles in September and October.

COMMON CATTLE GRUB (Hypoderma lineatum) in OKLAHOMA was heavy in the backs of untreated cattle in January and early February but numbers began to decline in mid-February. The first of the fall were found in Pittsburg County about November 20.

An unusual case of adult human myiasis caused by a SARCOPHAGID FLY (Wohlfahrtia vigil) in OREGON was reported from a 60-year-old Tillamook County resident. The maggot produced a furuncular neck wound.

HEAD LOUSE (Pediculus humanus capitis) infestations in OREGON occurred earlier and, the number of cases among the Salem area elementary school children was above normal. Lice were also a problem in the greater Portland metropolitan area. In WASHINGTON it has been on the increase in the western area, especially in Pierce and King Counties. At least 2 schools were temporarily closed due to infestations. CRAB LOUSE (Pthirus pubis) reports were also greater than past years.

Incidence of head lice continues to increase in NEW HAMPSHIRE each year, although official statistics are not available. Numerous school districts have already reported cases this year and problems persisted in the Strafford County area through the summer months. Part of the increased incidence may be due to increased surveillance by school personnel. Outbreaks have been less extensive this fall due to early detection of cases.

CAT FLEA (Ctenocephalides felis) and HECTOPSYLLID FLEA (Echidnophaga gallinacea) were extremely high on pets in FLORIDA. Weather conditions, with a wet spring and summer leading into a very dry fall and winter, apparently favored development.

BROWN DOG TICK (Rhipicephalus sanguineus) in OKLAHOMA was again very common. Moderate to heavy numbers were found on dogs, in homes, and in lawns in many counties in the northeastern, west-central, central, east-central, southwestern, south-central, and southeastern areas from mid-April to early October.

NORTHERN FOWL MITE (Ornithonyssus sylviarum) in FLORIDA was present in higher numbers in 1979 than 1978, with as many as 100,000 per bird. These infestations continued throughout the year in locations in Bradford County, with up to 1,000 mites per bird into June and July.

STORED PRODUCTS

INSECTS

Significant RICE WEEVIL (Sitophilus oryzae) populations in SOUTH CAROLINA were found in on-farm stores of corn, barley, oats, and wheat sampled as part of a statewide survey during 1979. About 25% of the stores sampled had been treated with organophosphate protectants at the time of storage. This suggests a rather high resistance of this pest to an organophosphate. Also 10 of the stores sampled had been treated with pour-on type liquid grain fumigant immediately following storage, indicating that the infestations occurred from extant native populations outside the bins.

RED FLOUR BEETLE (Tribolium castaneum) infestations in SOUTH CAROLINA were present in about 50% of all on-farm stores of corn, wheat, and oats sampled.

ALMOND MOTH (Ephestia cautella) infestations in SOUTH CAROLINA were found in 20% of the on-farm stores of corn sampled, some of which had been treated with an organophosphate protectant and liquid fumigants. A very serious infestation (100% of stores) was found in cottonseed, cottonseed mill, and cottonseed cake stored at a processing facility in the Piedmont.

ORIENTAL CONIFER PEST BECOMES ESTABLISHED IN COASTAL CALIFORNIA
(Lepidoptera: Gelechiidae)
Thomas D. Eichlin ^{1/}

Species of the genus Stenolechia Meyrick are known from eastern and southeastern Asia. S. bathrodyas Meyrick was described from Tokyo, Japan. This report on an established population in the southern coastal region of California marks the first recording of both the genus Stenolechia and the species bathrodyas in the Western Hemisphere. Although specimens had been collected from various localities in California since 1969,

the gelechiid's correct identity remained unknown until now. A manuscript has been submitted to "The Pan-Pacific Entomologist" further documenting and detailing the population.



Stenolechia bathrodyas

According to K. Sims, San Diego County Department of Agriculture, and V. Lazareo, County Farm Advisor, both of whom are responsible for most of the detection work, S. bathrodyas has become the major pest of various species and hybrids of junipers from Ventura to San Diego, and is currently confined to ornamental plantings located within

16 km (10 mi) of the coast. The species is apparently trivoltine, with adults present in April, June, and August into September. The larvae feed on the leaves, cutting completely through them, causing the leaves to die. When heavily infested, the effect of this type of feeding causes whole branches or sections of the host tree to become brown, resembling some tree disease symptoms. Browning and leaf dropping are most severe following the hotter, drier periods of summer when the trees are under additional stress. Pupation occurs on the host in thin cocoons covered with bits of wood, leaves, and frass, and the pupa is often concealed under an old leaf.

The moth is small (forewing length 2.8-3.0 mm); the wings are basically pale yellow-brown, with various irregular dark spots, surrounded by pale whitish areas. The fully grown larva is about 5.5 to 6.0 mm long, green with brownish-yellow head and dark, contrasting prothoracic shield, anal shield, and somewhat straplike, transverse sclerite dorsally on the ninth abdominal segment; anal fork atypical of gelechiids, appearing more like anal comb of many tortricoid species.

Unchecked, S. bathrodyas must be considered a potentially destructive pest to our native Juniper species just to the north of the presently known infestation.

LITERATURE

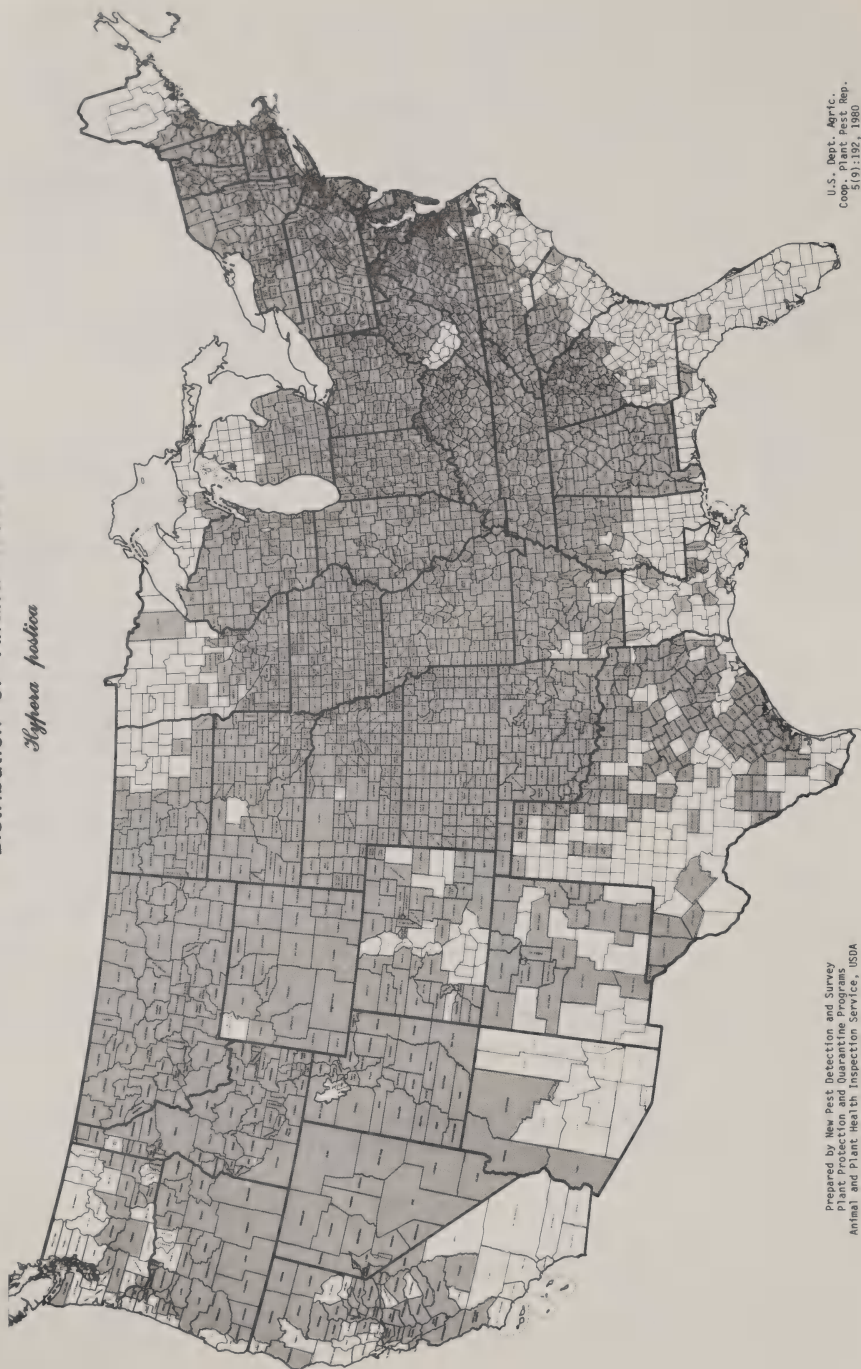
Meyrick, E. Exotic Microlepidoptera 4:583; 1935.

^{1/} Systematic Entomologist, Insect Taxonomy Laboratory, California Department of Food and Agriculture, 1220 N Street, Sacramento, CA 95814.

U.S. Dept. Agric., Coop. Plant Pest Rep., 5(9):191, 1980

Distribution of Alfalfa Weevil

Hypera postica



Prepared by New Pest Detection and Survey
 Plant Protection and Quarantine, USDA
 Animal and Plant Health Inspection Service, USDA
 February 22, 1980

U.S. Dept. Agric.
 Cooperative Wildlife
 5(1)-192, 1980

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142880

34/033NIDMDHYNN
C H HOFFMANN
6906 40TH AVE
HYATTSVILLE

R1 CPR-0001

MD 20782



453
823
253

4/30

April 4, 1980

U.S.
DEPARTMENT
OF AGRICULTURE

Vol. 5

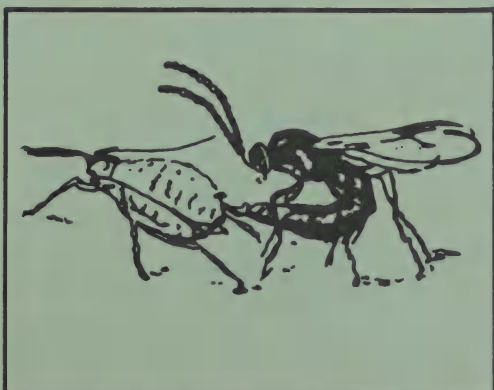
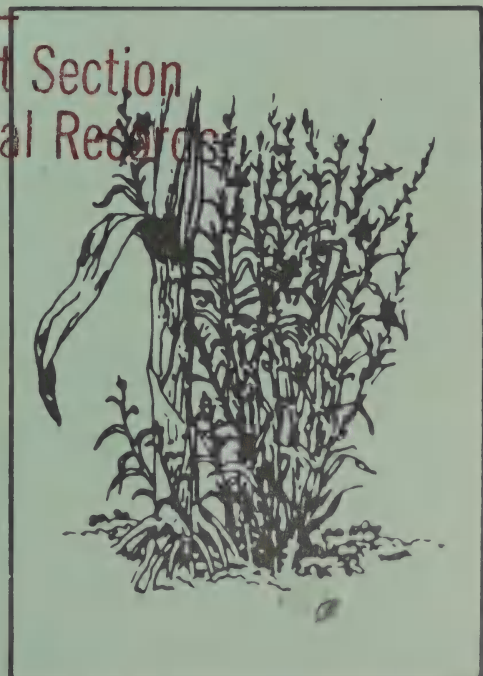
No. 10

Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY

APR 23 1980

Cooperative PLANT PEST REPORT



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

ALFALFA WEEVIL problem in southeastern area of New Mexico. (p. 195-196).

About 75% of GRASSHOPPER egg pods destroyed in southeastern area of New Mexico. (p. 198).

Detection

WESTERN BLACK FLEA BEETLE is new for Illinois. (p. 196).

For new county and island records see page 200.

Some First Occurrences of Season

ARMYWORM adults in Delaware. ALFALFA WEEVIL adults in Idaho and larvae in Kansas. EASTERN TENT CATERPILLAR larvae in Kansas and South Carolina. EASTERN SUBTERRANEAN TERMITE swarms in Maryland.

Special Reports

Summary of Pest Conditions in the United States - 1979

Beneficial Organisms and Their Enemies. (p. 201-203).
Federal and State Programs. (p. 203-210).
Contributors. (p. 211).

Preliminary Estimated Losses from Rust in 1979.

Losses due to stem rusts on oats and leaf rust on barley more than doubled since 1978. (p. 212-216).

Reports in this issue are for the week ending March 28 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Insects.....	195	Deciduous Fruits and Nuts Insects.....	197
Small Grains Insects.....	195	Ornamentals Insects.....	197
Forage Legumes Insects.....	195	Forest and Shade Trees Diseases.....	197
Cole Crops Insects.....	196	Insects.....	197
General Vegetables Insects.....	196	Man and Animals Insects.....	198
Beneficial Organisms and Their Enemies Insects.....	198	Households and Structures Insects.....	198
Federal and State Programs Insects.....	198		
Hawaii Pest Report.....	198		
Light Trap Collections.....	199		
Detection.....	200		
Corrections.....	199		
Summary of Pest Conditions in the United States - 1979			
Beneficial Organisms and Their Enemies			
Diseases.....	201		
Insects.....	201		
Federal and State Programs			
Diseases.....	204		
Insects.....	204		
Preliminary Estimated Losses for Rust in 1979.....	21		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - ILLINOIS - District> County= status in cornstalks: ESE> Marion= larval winter survival generally averaged 70-75%. (A.M. Agnello).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS - District> County= status in cornstalks: SW> Stevens= live overwintered larvae in 20% previously infested stalks in 1 field undisturbed, except grazed, since harvest. (L. Bocl, D.E. Mock). Past surveys show much mortality may occur later. (K.O. Bell, Jr.).

BLACK CUTWORM (Agrotis ipsilon) - KANSAS - District> County= adult males in pheromone traps, March 22-28 (K.O. Bell, Jr., J.D. Lambley):

District> County	Number of males		Number of nights	City
	Trap 1	Trap 2		
NE> Pottawatomie	2	0	3	Wamego
NE> Pottawatomie	1	4	4	Wamego
EC> Shawnee	0	2	2	Rossville

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - District> County= adult males in pheromone traps: C> St. Johns= increased, 17 in 3 traps at Hastings, March 19-26, 12 on January 23, 1 on January 30, and 4 on February 6. (R.B. Workman).

SMALL GRAINS

INSECTS

ARMYWORM (Pseudaletia unipuncta) - DELAWARE - First adults of season. District> County= status on cereal and small grains: C> Kent= present in southern area. (Graustein).

GREENBUG (Schizaphis graminum) - NEW MEXICO - District> County= status on wheat week ending March 21: SE> Chaves= continued severe problem, 20-30 per stem in Cottonwood area; controls continued. (L. Gholson). Currently on wheat and other small grains: NW> San Juan= increased and NE> Curry, Roosevelt, and Quay= moderate to heavy scattered infestations in wheat fields, some treated. (J. Durkin).

WINTER GRAIN MITE (Penthaleus major) - WASHINGTON - District> County= status on wheat March 21: SE> Walla Walla= affected 75% of plants in 40.5-ha field near Blue Creek. (A. Willson).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - IDAHO - First active adults of season. District> County= adults on forage legumes March 24: SC> Twin Falls= at residence at Twin Falls. (R.L. Stoltz). NEW MEXICO - Egg laying heavy. Larvae hatched in January or February now pupating. District> County= counts per 0.09 sq m of forage legumes week ending March 21: SE> Lea= averaged 0.5-1.5 in Lovington and Hobbs areas, and Chaves= 1-30 in Pecos Valley. (L. Gholson). Current

alfalfa weevil larval status on alfalfa: SE> Dona Ana= very light to heavy, problem countywide, treated. (J. Durkin). KANSAS - First of season. District> County= larvae in alfalfa stems: SE> Elk and Montgomery= 1st instar trace, Montgomery= 3rd instar 1, and Cowley= none. (B.D. Hilbert).

MISSOURI District> County= alfalfa weevil average eggs per 0.09 sq m of forage legumes: SW> Barton= 42, W> Vernon= 59, and Bates= 35. (R.E. Munson).

ILLINOIS - District> County= eggs per 0.09 sq m of forage legume stems: SW> Jackson= 8-9 and Washington= 24-26.4, some pinholing damage. Somewhat lighter than expected despite mild winter. Adults apparently returned late to fields last fall. Buildup could be delayed with a cool spring. New forage legume growth 5-8 cm tall in southern counties. (A.M. Agnello).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: SE> Pima= larvae 212, C> Maricopa= larvae 2-620 and adults 2-40, Pinal= larvae 110, and SW> Yuma= larvae 10-150 and adults 10-50. (L. Lee et al.).

PEA APHID (Acyrtosiphon pisum) - KANSAS - District> County= status on alfalfa: SE> Montgomery= heavy in some bottom land fields along Neosho River; heavy populations caused yellowing in 2 fields near Coffeyville, controls applied. (J.M. Smith et al.). FLORIDA - District> County= immatures and adults per 100 sweeps of alfalfa: C> Alachua= about 3,500 at Gainesville. (F.W. Mead).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - District> County= status on alfalfa week ending March 21: SE> Chaves and Lea= damaged newly planted fields near Roswell and Lovington, respectively. (L. Gholson). FLORIDA - District> County= immatures and adults per 100 sweeps of alfalfa: C> Alachua= about 400 at Gainesville. (F.W. Mead).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - District> County= status on alfalfa: SE> Eddy and Dona Ana= scattered heavy populations, controls applied. (J. Durkin).

COLE CROPS

INSECTS

WESTERN BLACK FLEA BEETLE (Phyllotreta pusilla) - ILLINOIS - New State record. Easternmost extension of known range. District> County= collection data from Armoracia rusticana (horseradish): WSW> Madison= near Granite City, July 10, 1977 and October 25, 1978, by D. Sherrod, determined by E.H. Smith. (A.M. Agnello).

GENERAL VEGETABLES

INSECTS

VEGETABLE LEAFMINER (Liriomyza sativae) - FLORIDA - District> County= status on celery: S> Palm Beach= larvae and adults increased at Belle Glade. Larvae averaged 2.3 per plant in 11-ha field March 20, no parasites. Average increased to 8.5 per plant March 26, larval parasitism by braconid and chalcidoid wasps slightly less than 0.5%; at same time adults still light, increased 2.5 times, based on sticky trap catches. (W.G. Genung).

DECIDUOUS FRUITS AND NUTS

INSECTS

WINTER MOTH (Operophtera brumata) - OREGON - First instar larvae continued increase, indicating hatch still in progress at Tigard. County= larvae per leaf cluster of filberts: Washington= increased from 0.72 on March 21 to 1.2 March 24. Total of 89 (63%) of 141 samples contained larvae and/or feeding damage. Population at later date 100% 1st instar. (R.L. Penrose).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - KANSAS - First of season. District> County= larvae on black cherry: SE> Montgomery= hatching. (B.D. Hilbert). SOUTH CAROLINA - First larvae of season. District> County= larvae on wild cherry March 19: C> Lexington= present. (J.L. King). NORTH CAROLINA - Egg hatch underway across Coastal Plain and southern Piedmont. District> County= larvae on wild cherry: Central Piedmont> Wake, Chatham, Northern Coastal> Edgecombe, and Central Coastal> Wilson, and Johnston= 2nd instar present, tents in early stages. (T. Hunt).

ORNAMENTALS

INSECTS

A GELECHIID MOTH (Stenolechia bathrodyas) - CALIFORNIA - District> County= status on juniper: Southern California> San Diego= damage extensive and severe to several species and varieties in residential plantings at various locations. Ventura and Santa Barbara= negative in various residential areas and city parks at Ventura and Carpinteria, respectively, surveyed to determine northern limit of infestation; negative in more extensive survey of latter county. More followup anticipated in counties of region. (C.S. Papp).

VEGETABLE LEAFMINER (Liriomyza sativae) - FLORIDA - District> County= larval status on Chrysanthemum sp. (Chrysanthemums): S> Manatee, Lee, and Martin= heavy and damaging on commercial farms, beginning about March 21. (J.F. Price).

FOREST AND SHADE TREES

DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - CALIFORNIA - District> County= status on Siberian elm: Central Coast> Contra Costa= positive in 18-cm diameter, almost dead standing tree, December 4, 1979, and in 150-cm diameter multiple trunk standing tree, February 6, 1980. Both trees in Walnut Creek and removed. (T. Tidwell).

INSECTS

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - SOUTH CAROLINA - District> County= status on pine: NW> Anderson, Oconee, and Pickens= added to infestation zone. Activity in pines near some spots where trees cut earlier. Totals of 10,965 cords and 69,000 board feet of timber salvaged in January. (M.C. Remion).

NANTUCKET PINE TIP MOTH (*Rhyacionia frustrana*) - ARKANSAS - District> County= status on Pinus taeda (loblolly pine): C> Garland= adults observed flying in plantation in mid-March, very little background vegetation. (M.A. Mayse).

AN APHID (*Cinara watsoni*) - OKLAHOMA - New county record. District> County= collection data from Pinus echinata (shortleaf pine): EC> Adair= moderate on tree 19 km northeast of Stilwell, February 18, 1980, collected by P.M. Hayden, determined by D.C. Arnold. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (*Haematobia irritans*) - FLORIDA - District> County= status on beef cattle: C> Alachua= continued steady increase in small herd at Micanopy, averaged 62 per animal, economic threshold 50. (D. Simon).

HOUSEHOLDS AND STRUCTURES

INSECTS

EASTERN SUBTERRANEAN TERMITE (*Reticulitermes flavipes*) - MARYLAND - First of season. District> County= status: NC> Baltimore, Montgomery, and S> Prince Georges= swarms reported, expected to increase rapidly next 4 weeks and peak in late May. (J.L. Hellman).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

A LADY BEETLE (*Coleomegilla maculata*) - SOUTH CAROLINA - District> County= status: WC> Newberry= some overwintered adults emerged on pecans. (J.O. Donkle, M.E. Gilreath).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASS BUGS (*Labops* spp.) - NEW MEXICO - District> County= nymphal average per 0.8 sq m of crested wheatgrass: NW> McKinley= 1st instars 1-5 south of Pescado, Zuni Reservation. Hatch incomplete, damage minimal. (F. Smith).

GRASSHOPPERS - NEW MEXICO - District> County= status of viable egg pods: SE> Eddy= about 75% destroyed in river bottom area southeast of Artesia, probably by predators; egg pods very heavy during fall. (M. Perry).

HAWAII PEST REPORT

General Vegetables - DIAMONDBACK MOTH (*Plutella xylostella*) - Island= status on head cabbage [heading]: Maui= infestations and foliar damage moderate on 2 ha at Omaopio. ONION THRIPS (*Thrips tabaci*) - Island= status on bulb onion: Maui= infestations and foliar damage heavy on 1 ha at Omaopio, no damage on marketable part of crop which reached harvesting maturity. (L.M. Nakahara, J. Ah Sam).

Fruits and Nuts - ORANGE SPINY WHITEFLY (Aleurocanthus spiniferus) - New island record. Island= collection data on citrus: Maui= trace on 2 plants at Kahului, March 18, 1980, collected by N. Miyahira and L.M. Nakahara, determined by S.Y. Higa. Infestation on rose effectively controlled by Prospaltella smithi (a eulophid wasp). (L.M. Nakahara)

Ornamentals and Shade Trees - A WHITEFLY (Aleurodicus dispersus) - Island= status: Maui= delimiting survey showed no discernible change at Kahului, March 19, since survey in December 1979. During December survey, 112 ha downwind of northeastern trade winds from infestation source, infested. During current survey, frequent and strong southerly winds during past few months believed responsible for lack of dispersion. Infestations generally trace to light in most exposed areas, moderate in protected situations. (N. Miyahira, L.M. Nakahara).

A WHITEFLY (Orchamoplatus mammaeferus) - New island record. Island= collection data from citrus and croton: Maui= light at Wailuku, March 19, 1980, collected by N. Miyahira and L.M. Nakahara, determined by S.Y. Higa. (L.M. Nakahara).

CORRECTIONS

CPPR 4(13):194 - U.S. mean of losses due to leaf rust on winter wheat should read 2.6 percent, not 26.0.

CPPR 5(1):1 - Detection - "New hosts for... San Jose scale in California...." should read "New hosts for... San Jose scale in Oklahoma...."

CPPR 5(7):156 - Second to last paragraph should read "Nymphs and adults of a SPIDER MITE (Eotetranychus willamettei) in CALIFORNIA infested grapes at 30 per leaf in September in the San Joaquin Valley District."

CPPR 5(8):165 - Misprint below Camponotus rectangularis Emery, should read Ceroplastes japonicus Green, a soft scale.

CPPR 5(9):179 - ARMY CUTWORM (Euxoa auxiliaris) - KANSAS - "... (R.J. Bauernfeind):" should read "... (R.J. Bauernfeind et al.):"

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 3/17-23, BL - ARMYWORM (Pseudaletia unipuncta) 7, BEET ARMYWORM (Spodoptera exigua) 6, BLACK CUTWORM (Agrotis ipsilon) 7, CABBAGE LOOPER (Trichoplusia ni) 2, VARIEGATED CUTWORM (Peridroma saucia) 29. CALIFORNIA - Bellota, 3/23, BL - Armyworm 2, black cutworm 1, GRANULATE CUTWORM (Feltia subterranea) 1. Manteca, 3/23, temp. 7.2-22, BL - Armyworm 11. FLORIDA - Gainesville, 3/20-26, BL - Black cutworm 1, granulate cutworm 21, SALTMARSH CATERPILLAR (Estigmene acrea) 1. KANSAS - Manhattan, 3/22-28, BL - Black cutworm 0.

DETECTION

NEW STATE RECORD

INSECTS

WESTERN BLACK FLEA BEETLE (Phyllotreta pusilla) - ILLINOIS - Madison County. (p. 196).

NEW COUNTY AND ISLAND RECORDS

INSECTS

AN APHID (Cinara watsoni) - OKLAHOMA - Adair. (p. 197).

ORANGE SPINY WHITEFLY (Aleurocanthus spiniferus) - HAWAII - Maui. (p. 198).

A WHITEFLY (Orchamoplatus mammaeferus) - HAWAII - Maui. (p. 198).

SUMMARY OF PEST CONDITIONS IN THE UNITED STATES - 1979
(Continued from page 190)

BENEFICIAL ORGANISMS AND THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) infected Hypera postica (alfalfa weevil) larvae collected in several counties scattered throughout KENTUCKY during May; an epizootic condition was observed in several fields during mid- to late May. The importance of this pathogen in reducing alfalfa weevil populations to below economic levels is not clear. Although this pathogen did cause the death of large numbers of larvae, the infection normally took place long after larval populations had reached damaging levels. Also, the effect of this disease on subsequent adult numbers is unknown, but there would seem to be a good chance that overwintering beetle numbers should have been reduced and that 1980 larval populations should be lighter than normal.

Entomophthora phytonomi in INDIANA infected trace numbers of alfalfa weevil larvae over much of the southern half of the State. In one Harrison County field, it was responsible for the almost complete destruction of the larval population. However, this occurred only after the field was badly damaged and many larvae had pupated and were safe from the disease. In WISCONSIN, it was identified on specimens obtained in June from Sheboygan County. Larvae with similar symptoms were observed in Dane, Marquette, and Grant Counties. The rearing of alfalfa weevil larvae collected in June statewide revealed a wider distribution of an ICHNEUMONID WASP parasite (Bathyplectes curculionis) than earlier recorded.

INSECTS

Adults of an ICHNEUMONID WASP (Bathyplectes curculionis) in OKLAHOMA were active in alfalfa in Stephens County by late March. Peak season collections, April 21 to May 8, of ALFALFA WEEVIL (Hypera postica) larvae from alfalfa ranged 1-67% parasitized. The statewide average was 85.6%. The rearing of alfalfa weevil larvae collected in June throughout WISCONSIN showed a wider distribution than earlier recorded. In KENTUCKY, it was reared from 21 of 25 samples of alfalfa weevil larvae representing 23 counties between April 26 and May 22. Parasitism averaged only 2.9% (ranged 0-18.5%) which was substantially below the 7.2% parasitism rate observed in 1978 and well below the rate of 13.2% observed in 1977.

The rate of parasitism by Bathyplectes curculionis and an ICHNEUMONID WASP (Bathyplectes anurus) in INDIANA surpassed 25% only in the south-central district (27%). The statewide average was 15% (1978: 23%). Bathyplectes anurus was collected for the first time from Franklin, Orange, and Johnson Counties. See CPPR 5(1):15.

AN ICHNEUMONID WASP (Bathyplectes anurus) in KENTUCKY was reared from 9 of 25 samples of Hypera postica (alfalfa weevil) larvae representing 23 counties between April 26 and May 22. Parasitism averaged 1.5% (ranged 0.3-8.5%) in the 9 positive samples. The percentage of parasitism in fields where Bathyplectes anurus is established was nearly identical to the levels observed in 1978.

Parasitism by an APHIDIID WASP (Lysiphlebus testaceipes) of Schizaphis graminum (greenbug) in OKLAHOMA was first noted in the north-central counties in late July. In Texas County, parasitism was light through the middle of August but increased rapidly and had virtually eliminated greenbug infestations by the end of the month.

Generally improved management techniques improved ALFALFA LEAFCUTTING BEE (Megachile rotundata) stocks in WASHINGTON. A few alfalfa seed growers and bee trappers in the upper Columbia Basin lost a significant percentage of their leafcutting bees to the severe cold weather last winter, although some bees were covered and stored in sheds.

ALKALI BEE (Nomia melanderi) flights in WASHINGTON appeared average to strong in 1979. Some severe early July winds in Walla Walla County reduced flight activity. For unknown reasons, seed set by alkali bees did not develop, causing much below average yields in fields relying on this pollinator.

Honey production by the HONEY BEE (Apis mellifera) in SOUTH CAROLINA was generally poor due to late spring colony buildup, constant rain during May, pesticide damage, and more rainfall during July which limited the mountain honeyflow. During 1979, 3,026 colonies were inspected, 18 of which were diseased. Two of these diseased colonies were destroyed and the rest were treated according to recommended practices.

WESTERN YELLOWJACKET (Vespula pensylvanica) populations were very high throughout the drier areas of eastern WASHINGTON. The large numbers of Vespula vulgaris were recorded in the wetter, more mountainous eastern areas and throughout the western area, especially in the Seattle area. Counts showed 3-7 workers flying per sq m. This has undoubtedly been the worst year for yellowjackets since the 1973 outbreak which was responsible for deserted parks and loss of revenue at resorts. Beneficial species were also quite abundant. BALDFACED HORNET (Vespula maculata) population levels were much higher than they have been over the previous 3 years. High population levels of YELLOWJACKETS, principally Vespula germanica, Vespula maculifrons, and Vespula vulgaris, in MICHIGAN were reported in 1977 and 1978, probably fostered by favorable overwintering and nest establishment conditions. High population levels were no exception in 1979; however, a cool spring resulted in a delayed development of colonies. A survey of homeowner yellowjacket problems showed that Vespula germanica is the most abundant species. In fact, it outnumbered all other reported species by a 2:1 margin. This introduced yellowjacket demonstrates a decided preference for nesting in buildings. It would appear infestations are well established in the southern three-fourths of the Lower Peninsula.

For RED IMPORTED FIRE ANT in FLORIDA, see Federal and State Programs, page 210, in this issue.

CONVERGENT LADY BEETLE (Hippodamia convergens) in OKLAHOMA was active in field crops from early March to mid-October and contributed to the control of aphids in wheat, sorghum, and alfalfa in several areas. Adults were unusually abundant in early June in a Benton County, ARKANSAS, alfalfa field, averaging 1 per sweep in association with a rather heavy Acyrtosiphon pisum (pea aphid) infestation. Various beneficials, including LADY BEETLES, occurred in unusually heavy numbers in southeastern cotton fields, especially during June and July. Relatively heavy aphid populations in cotton very early in the season may have provided the prey material for the proliferation of these natural enemies.

A WEEVIL (Rhinocyllus conicus) in KENTUCKY was confirmed to have been established in Logan and Barren Counties from releases made in 1978. The effectiveness of this weevil in controlling Carduus nutans (musk thistle) has not lived up to expectations at the 1975 Lexington release site. Although the weevil does seem to be effective at reducing early seed production, a lot of blooms are formed after egg laying by the beetle has ceased. In INDIANA, this species apparently has established itself on musk thistle in Ohio, Switzerland, and Johnson Counties.

A survey of the 1978 Rhinocyllus conicus release site in WISCONSIN (released to control musk thistle) at Kettle Moraine State Forest showed the weevil still present (34 egg masses and 2 adults on 100 flower heads). No sign of egg masses or larval feeding was observed at the Elkhorn, Walworth County, 1975 release site. In May, Rhinocyllus conicus was released in OREGON to control musk thistle. Four liberations totaling 2,600 weevils were made in Klamath County.

Over 100,000 adults of a FLEA BEETLE (Longitarsus jacobaeae) were collected in OREGON from established sites and redistributed within the State. Releases were made in Clatsop, Columbia, Tillamook, Washington, Multnomah, Clackamas, Yamhill, Marion, Polk, Lincoln, Benton, Linn, Lane, Douglas, Coos, and Curry Counties.

Adult numbers of a CLERID BEETLE (Trichodes ornatus), trapped in attractant traps in WASHINGTON, were much lower than in previous years, but larval infestations remained high in many bee stocks. Trichodes ornatus is a predator of Megachile rotundata (alfalfa leafcutting bee).

MELOID BEETLES (Nemognatha spp.), parasites of leafcutting bees, reached economically important levels (15%) in some Grant County, WASHINGTON, bee stocks.

About 380,000 CINNABAR MOTH (Tyria jacobaeae) larvae in OREGON were collected and redistributed to western sites infested with Senecio jacobaea (tansy ragwort) during the summer months.

A TEPHRITID FLY (Urophora affinis) was released in Spokane and Whitman Counties, WASHINGTON, against Centaurea diffusa (diffuse knapweed). Larvae form galls in flower heads reducing seed production.

BIGEYED BUGS (Geocoris spp.) and DAMSEL BUGS (Nabis spp.), important predators of alfalfa seed pests, occurred in low numbers in WASHINGTON in 1979. It is possible that a cool June and the additional aphicide treatments required hampered the development of beneficial insects.

FEDERAL AND STATE PROGRAMS

HIGHLIGHTS

No CEREAL LEAF BEETLE infestations were found in a survey of mainly oats in Minnesota, infestations in Wisconsin were too light in oats to cause economic losses, and no economic damage was observed in Kentucky. GRASSHOPPERS in Oregon caused losses of entire wheat fields and severely damaged rangeland and cropland. Populations were economic on more than 800,000 hectares. Outbreaks in Washington were serious in orchards adjacent to dry rangeland areas. Losses in some areas of New Mexico were extensive. Infestations were economic on more than 400,000 hectares of rangeland. GYPSY MOTH trapping in Wisconsin yielded 4

male adults outside the treated area and one within the area. Fifty adults were trapped in a high hazard area of South Carolina. Defoliation in Pennsylvania decreased sharply compared to 1978. Confirmed SCREWORM cases in the continental United States decreased significantly from those confirmed in 1978.

DISEASES

OAT STEM RUST (Puccinia graminis f.sp. avenae) in NEBRASKA was present in most oat [one-half berry to milk] fields in the northeastern district in early July. The average prevalence/severity observed in this area was 10-30%/trace to 10%. In WISCONSIN, it was very limited in distribution this year, infecting only 8 of 70 oat fields surveyed. Prevalence and severity were both below 1%.

WHEAT STEM RUST (Puccinia graminis f.sp. tritici) in KANSAS caused virtually no loss in 1979, even though wheat maturity was somewhat delayed. A few pustules were observed in the south-central area when the wheat was mature. Losses in 1978 were estimated at trace. In WISCONSIN, it was present in only 3 of 69 winter wheat fields surveyed and was limited to one particular variety not previously grown in this area.

INSECTS

Detection survey for CEREAL LEAF BEETLE (Oulema melanopus) in MINNESOTA began two weeks later in 1979 because of delayed planting of small grains. The survey included 290 field inspections, chiefly oats, in 61 counties. The 1979 survey yielded no beetles. Survey of oats in WISCONSIN in July and August found infestations in 12 counties in addition to the previous detections in Walworth, Waukesha, Rock, Racine, and Kenosha Counties. The new county records were Calumet, Manitowoc, Brown, Jefferson, Dodge, Washington, Kewaunee, Milwaukee, Ozaukee, Door, Fond du Lac, and Sheboygan Counties. See CPPR 4(30):595, 4(34):678, and 4(35):699. In all instances the populations were too low to cause economic loss or immediate concern about future economic loss.

In KENTUCKY, cereal leaf beetle populations appeared to be slightly higher than normal on small grains with no reports of economic damage. Detection surveys in NORTH CAROLINA in 1979 revealed 27 counties infested. Collections were made for the first time in Wilson, Davidson, and Lee Counties. See CPPR 5(9):185. Cereal leaf beetles were not detected this year in previously infested Gates, Pasquotank, Hertford, Caldwell, Alexander, and Ashe Counties, indicating low overwintering survival. The infestation continues to be concentrated in the north-central Piedmont counties with range expansion southward. Eggs of Tetrastichus julis (a eulophid wasp) were collected during May in Stokes, Rockingham, and Wilkes Counties from cereal leaf beetle larvae. This parasite appears to have migrated from nearby release sites in Virginia and represents the first detection in North Carolina. See CPPR 4(41):802.

Cereal leaf beetle adults in DELAWARE were common on barley and oats in several areas of Sussex County during May. In PENNSYLVANIA, averages of 22 and 41 eggs per 0.6 row m drill of small grains were found in Blair and Perry Counties on May 7 and 14, respectively. Adult counts averaged 20 and 41 per 20 sweeps, respectively. Larvae were first seen on May 14, but damage was not yet evident. No further data were received in 1979.

GRASS BUGS (Labops spp.) and MIRID BUGS (Irbisia spp.) in NEW MEXICO were serious on reseeded rangeland in Rio Arriba, Sandoval, and San Juan Counties. There was a cooperative control program in Rio Arriba County on 17,217 ha: 1,149 ha State land, 7,168.6 ha private land, and 8,899.1 ha Federal land.

Farmers in OREGON with spring wheat plantings located within or along the periphery of large rangeland hectares experienced varying degrees of damage to their crops from the MIGRATORY GRASSHOPPER (Melanoplus sanguinipes) in central and northeastern portions of the State. Stripping of leaves around the edges of the fields was quite common throughout the infested area. In some instances, grasshoppers chewed off the heads, resulting in direct loss of harvestable crop. Many hectares were treated statewide on a private basis. Bordering fields were also commonly done over within cooperative spray blocks to help prevent early damage. Losses of entire fields occurred. Most serious problems were reported from Gilliam, Morrow, and Grant Counties. Losses were enormous; one rancher in Gilliam County calculated his loss alone at \$100,000.

Melanoplus spp., in Oregon consisting primarily of Melanoplus sanguinipes and lesser numbers of Melanoplus bivittatus and Melanoplus packardii, occurred in outbreak numbers throughout most central and northeastern counties and severely damaged both range and croplands. Nymphal populations up to several hundred per 0.8 sq m were common throughout the infested area in mid-June. By early July, grasshoppers had completely consumed grasses and forbes and defoliated rangeland shrubs, broadleaved trees, and even junipers in many parts of Grant, Wheeler, Morrow, and Gilliam Counties. A total of 595,913 ha was treated with an ultralow volume organophosphate in 5 cooperative spray projects. Contracts included the Umatilla, Morrow, Gilliam, and Wheeler County block at 280,451 ha; the Jefferson-Wasco County area of 31,468 ha; Grant County, John Day block at 42,657 ha and the Grant-Wheeler County (Ritter-Monument-Spray) block at 96,153.6 ha and the Wallowa County block at 139,517 ha.

Substantial hectares in Oregon were also sprayed privately. Populations remained very high in untreated locales throughout most of the summer but declined dramatically toward the end of the season. Mortality factors responsible for this sudden sharp drop were varied but many grasshoppers appeared to have simply starved to death. Egg deposition could not be assessed; hence the possibility of another outbreak in 1980 cannot be forecast. Economic numbers, 8 or more per 0.8 sq m were found on 869,029 ha during the adult survey. Infested hectares by county are as follows: Baker--182,109; Crook--32,395; Grant--118,395; Harney--60,703.0; Jefferson--99,973.9; Malheur--202,344; Sherman--19,425; Umatilla--13,468; Union--30,352; Wasco--62,985.5; and Wheeler--46,878.9. Economic numbers of Camnula pellucida recurred in the Silver Lake Basin, Lake County. This area was treated in 1978 but control was poor due to heavy rain after application.

Although grasshoppers in Oregon were generally lower in 1979, a severe drought which limited the growth of forage plants made damage much more dramatic. A total of 5,665.6 ha was treated with an ultralow volume organophosphate. Control was assessed as good. Rangeland grasshoppers, primarily Melanoplus sanguinipes, devastated the first cutting of the hay crop in the central and northeastern counties in Oregon. Mass movement of grasshoppers down into canyon bottoms occurred throughout the infested area and many fields literally disappeared overnight. Some growers were able to cut early and save some forage, but many lost their entire first crop in Grant, Morrow, Wasco, Wheeler, and Wallowa Counties.

Melanoplus sanguinipes in Oregon completely destroyed backyard vegetable gardens grown in the peripheral areas of small central communities surrounded by rangeland. Continued mass movement into such areas from adjacent habitats resulted in the complete loss of gardens even with repeated applications of insecticides. Some residents replanted several times only to have each successive generation of seedlings devoured as it emerged from the ground. The most severe and persistent problems occurred in Umatilla, Morrow, Wheeler, and Grant Counties.

Extremely high Melanoplus spp. populations were recorded in Klickitat, Yakima, Asotin, Grant, Columbia, Garfield, Franklin, Ferry, Lincoln, and Okanogan Counties, WASHINGTON. This year can be categorized as an outbreak year. Most of the eastern counties experienced some infestation. In some of the more severely infested counties, up to 100 grasshoppers per 0.8 sq m were recorded. A total of 133,637 ha was sprayed in Klickitat, Yakima, Okanogan, and Ferry Counties. An estimated 11,736 additional hectares were sprayed privately. Grasshopper control was required in many fields, forage, and tree fruit crops. A survey in September 1979, reported substantial populations in most range areas of eastern Washington, although numbers had decreased from mid-summer surveys. A total of 43,139.6 ha was infested with more than 8 grasshoppers per 0.8 sq m (economic threshold for rangeland control) in Asotin, Columbia, Ferry, Garfield, Lincoln, Whitman, and Yakima Counties.

Melanoplus spp. in Washington moved from range areas into alfalfa hay and seed fields in high numbers, necessitating the mid-season application to fields and border areas. Serious outbreaks developed in orchards adjacent to dry, rangeland areas. Large-scale spraying and burning prevented injury to fruit trees in most instances.

in NEW MEXICO, principally Melanoplus spp. caused extensive losses in truck and home gardens in Bernalillo, Sandoval, De Baca, and Quay Counties. Hectares treated in cooperative control programs: Lea County--142,063 of State land; 136,768 of private land; and 194 of Federal land; and Harding and Union Counties--7,316.7 of State land; 41,775.8 of private land; and no Federal. Total hectares treated during 1979 were 382,119. Fall adult survey indicates the following hectares with economic populations (8 or more grasshoppers per 0.8 sq m): 627,265 of State land; about 1,375,940 of private land; and 536,615 of Federal land. Total hectares infested were about 2,539,820. Grasshoppers were a very serious problem in alfalfa fields in Tucumcari area, Quay County. Some growers lost full cutting. About 3,000 hectares of alfalfa were treated with good to poor results. Crops located near rangeland and near river bottoms in Eddy and Chaves Counties were heavily infested along edges of fields. About 200 hectares treated in northern Eddy County.

Newly hatched grasshopper nymphs in OKLAHOMA were reported in a few areas in mid- and late March but a general hatch of rangeland species did not begin until about April 10. Nymphal surveys in early May showed infestations of 7-30 per 0.8 sq m in scattered areas in several southeastern, south-central, west-central, northwestern, and Panhandle counties, Oklahoma. Adult grasshopper surveys in late August and early September showed economic infestations (8+ per 0.8 sq m) on 460,939 ha of rangeland in 31 counties. Dominant species in one or more areas were Ageneotettix deorum, Aulocara ellioti, Drepanopterna femoratum, Amphitornus coloradus, Syrbula admirabilis, Phlibostroma quadrimaculatum, Metator pardalinus, Melanoplus differentialis, Melanoplus packardii, Melanoplus occidentalis, Melanoplus gladstoni, Melanoplus sanguinipes, Mermiria maculipennis, and Hadrotettix trifasciatus.

During the second half of June, cooperative control programs in Oklahoma were undertaken on 33,791 ha in Carter and Murray Counties, 19,020 ha in Roger Mills County, and 6,070.3 ha in Greer and Beckham Counties. In general, grasshoppers were abundant in many areas but were not as heavy or widespread as in 1978. Also, higher than normal rainfall during the summer months in many areas helped keep damage at somewhat lower levels this year. Damage to crop margins, gardens, lawns, ornamentals, etc. was reported in a number of areas this year, especially in June and July, but these sorts of damage were also not as heavy or widespread in most areas as in 1978.

Three GYPSY MOTH (*Lymantria dispar*) specimens were trapped in CALIFORNIA. The first specimen was trapped July 10 at Santa Barbara, the second specimen was trapped July 18 at EL Monte, and the third was trapped July 23 at Santa Barbara. Specimens one and three were about 5 km apart and about 160 km from second find, at Los Angeles. Intensified trapping in OREGON of the greater Portland metropolitan area, using a grid system with 1 trap deployed per 5 sq km, resulted in the collection of 2 male moths. The first was taken on August 9, 2.5 sq km south of Milwaukie, Clackamas County, the second in southwestern Lake Grove, Clackamas County, on August 11. These collection points are 8 km apart. Deployment of additional traps around these 2 initial finds failed to attract any additional moths and no damage or egg masses were found.

On May 21, 1979, ground spray operations were initiated at Bryn Mawr, King County, WASHINGTON, in an effort to eradicate a gypsy moth infestation. About 200 ha of privately owned residential property received 2 foliage treatments with an acephate applied at the rate of 0.2 kg actual insecticide per 379 L of water. The second insecticide treatment was completed June 1, 1979. Trapping operations were conducted in King, Pierce, Kitsap, Snohomish, Skagit, and Island Counties, from July to September, 1979. Both *disparlure* and (+) enantiomer lure were used.

On August 3, one male gypsy moth was caught on the south periphery of the area sprayed in Washington. On August 16, a male was caught about 10 km northwest of the area of infestation sprayed in May and June, and on September 12, a second male was recovered from the same location as the August 16 capture. No further moths were captured this season. About 400(+) enantiomer lure traps and 700 *disparlure* traps were utilized on this survey in western Washington. *Disparlure* traps were placed in several eastern communities with negative results. All trapping activities were concluded on September 21, 1979.

In MINNESOTA, a total of 3,536 gypsy moth traps was set on a 1 per 8 sq km basis, on prime host trees. Two male moths were taken in traps. One was found August 7 in Minnetonka Township, Hennepin County, the other on August 27 in Eureka Township, Dakota County. At present these are considered to be "hitchhikers."

Trapping and control efforts for gypsy moth in WISCONSIN were undertaken in 1979. A biocontrol agent was applied to 121 ha near Ocononowoc on May 24 and 30. On July 11, 170 ha were sprayed with *disparlure*. The trapping in this area yielded 4 male moths outside the treated area and 1 within it. An egg mass survey in this area was negative. Detection trapping over the southern 45% of the State yielded negative results. Control trapping was carried out in Appleton where male moths had been trapped in the last 5 years. Seven male moths were caught within a small ravine. No egg masses were found in this ravine.

Gypsy moth in MICHIGAN was distributed over the lower one-half of the Lower Peninsula. Populations remained generally low but were detected over a wide-spread area. Some visible defoliation was observed in Isabella County. Trapping was conducted in SOUTH CAROLINA in high hazard areas such as campgrounds, rest stops, and areas where moths had previously been trapped. Statewide, 984 traps were placed in these type areas, with 482 being located in 12 campgrounds in Horry and Georgetown Counties. Fifty moths were trapped in 11 campgrounds of Horry County and one moth was trapped in a Georgetown County campground (new county record). See CPPR 4(31):618. No moths were found in any other areas of the State. An egg mass survey was conducted in November with negative results.

General collections of gypsy moth decreased in NORTH CAROLINA from 1978 with a total of 18 collections statewide. In Avery County, 23 collections during 1978 led officials to conclude that an active infestation was likely. Insecticide treatments were applied. Only 8 males were collected in the area during 1979. The number of collections has also decreased greatly on the outer banks. Eggs, larvae, or pupae have not been detected in either area to date.

First hatching of eggs in DELAWARE was noted on May 1 in New Castle County on white oak. Little, if any, serious injury has occurred since it was first noted in the State in 1969.

Gypsy moth egg hatch was accelerating in PENNSYLVANIA throughout forest, ornamental, and shade trees by May 8. Second instar larvae were as far north as University Park on May 15. Male and female moths were observed in York and Lancaster Counties on July 5. The first eggs were observed on oaks in Bedford County on September 18.

1979 Gypsy Moth Spraying and Defoliation Data

County	Hectares sprayed in 1979	Hectares defoliated in 1978	Hectares defoliated in 1979		
			Moderate	Heavy	Total
Berks	0	1,700	168	0	168
Bucks	0	0	285	9	295
Centre	483	7,335	939	165	1,104
Chester	0	1,174	183	202	385
Cumberland	460	620	0	0	0
Dauphin	15	428	0	0	0
Juniata	301	15,605	191	32	223
Lackawanna	273	878	134	0	134
Lancaster	0	0	26	0	26
Lehigh	0	211	19	0	19
Mifflin	55	11,754	45	44	89
Montgomery	0	0	113	39	152
Perry	2,204	16,771	666	202	868
Pike	399	65,353	0	0	0
Wayne	238	14,569	0	0	0
TOTALS:	4,428	183,280*	2,769	693	3,463

*Including 11 other counties

An aerial insecticide application program for gypsy moth in Pennsylvania was conducted on 5,158.5 ha of campgrounds from May 16 to June 5, 1979. The insecticide formulation was a carbamate. The total cost of the project was about \$96,000. The program objective was to minimize the hazard of gypsy moth spread on recreational vehicles and camping equipment through suppression of gypsy moth populations in public use campgrounds. Inspections conducted to date in treated campgrounds indicate that the objective was met.

Summary of Areas Treated

<u>Agency</u>	<u>Hectares</u>	<u>Number of campgrounds</u>	<u>Number of locations</u>
Plant Protection & Quarantine	5,120	149	145
DER--Bureau of Forestry	<u>39</u>	<u>4</u>	<u>3</u>
PROGRAM TOTALS:	5,159	153	148

A total of 15 campgrounds in Lancaster, Lebanon, and Mifflin Counties was treated by mist blower. Mist blower treatments were made because the campgrounds could not be treated by air, or infested areas were found in some that were treated by air, or some of the campgrounds which were not treated were found to be infested after the completion of the aerial program. Fourteen campgrounds were treated with a carbamate. One was treated with a Halogenate urea because of bees near the campground. The areas treated included only land owned by the campground. No State parks were included in the treatment.

Gypsy moth eggs began hatching in NEW HAMPSHIRE on April 27 at Durham, Strafford County, following a period of mild, wet weather and was complete by April 29. Statewide, hatching was completed by May 12. Defoliation became evident in heavily infested areas by mid-June and aerial surveys were conducted. The Canterbury, Merrimack County, defoliation site was much less noticeable in 1979, with defoliation observable on about 80.9 ha around the periphery of the original infestation. Most extensive defoliation occurred in Conway, Carroll County, along the Redstone Ledge. Statewide, about 400.0 ha were 60-100% defoliated and 730.0 ha were 30-60% defoliated. A total of 2,428 ha was affected in 1979, a substantial increase over 1978. Reports from the southern half of New Hampshire indicated that gypsy moth activity increased throughout the area, with numerous males observed in hardwood forests. Egg masses also were more commonly observed in 1979, indicating that there has been a general increase in activity during the last 2 years.

Survey for the JAPANESE BEETLE (*Popillia japonica*) in OREGON was conducted in 10 western counties utilizing 140 traps. Additionally, 101 planes originating in infested States were searched upon arrival. No beetles were trapped but one live adult was found during the plane inspections.

In MINNESOTA, a total of 384 traps was set by the State for the detection of the Japanese beetle in airports, at a train station, in railroad freight yards, at truck terminals, at barge traffic terminals, and in Duluth port area 84. No Japanese beetles were detected during the 1979 season.

In WISCONSIN, about 300 Japanese beetle traps, baited with both pheromone strips and lure, were set out at airfields in Milwaukee and Dane Counties, and at waysides along the major highways and railroad yards in the southeastern corner of the State. Three adults, probably "hitchhikers," were caught, 1 in Rock County and 2 in Milwaukee County. Japanese beetle caused only minor damage to corn in eastern KENTUCKY.

Japanese beetle in DELAWARE was generally less of a problem this season as compared to most recent years with adult emergence occurring later (late June) than usual in forest, shade trees, and ornamentals. One of the earliest reported collections of an adult in central PENNSYLVANIA occurred at University Park on a conifer on June 7. Adults were emerging in Dauphin County on July 1 and in most parts of Centre County on July 5.

PINK BOLLWORM (Pectinophora gossypiella) in NEW MEXICO was present, but at extremely low levels, in cotton fields in southern Eddy County and in Virden Valley, Hidalgo County, based on field surveys and checking lint cleaners at gins.

Control programs for RANGE CATERPILLAR (Hemileuca oliviae) in NEW MEXICO involved treatment with a chlorinated phosphate and a carbamate. The area treated with a carbamate included 4,031 ha of State land; 34,298 ha of private land; and 227 ha of Federal land. Those hectares treated with a chlorinated phosphate included 1,651 ha of State land; 28,128 ha of private land; and 647.5 ha of Federal land. A total of 68,830.8 ha was treated.

RED IMPORTED FIRE ANT (Solenopsis invicta) in FLORIDA was a major predator of Plutella xylostella (diamondback moth) and Trichoplusia ni (cabbage looper) in research plots of cabbage at Sanford during spring and fall. It was also a major predator of Spodoptera frugiperda (fall armyworm) in sweet corn research plots at Sanford during spring, summer, and fall. Control was poor on pastures in the Hastings area.

In SOUTH CAROLINA, a quarantine area for red imported fire ant covering 15 entire counties and portions of 16 others, is being maintained. The area under quarantine has not been expanded since 1975. Single fire ant mounds were found in 3 additional counties during 1979, establishing new county records. See CPPR 4(34):679 and 4(43):846. No large scale treatments have been made since 1977.

The red imported fire ant infestation in NORTH CAROLINA detected during 1978 in Hyde County near Swanquarter appears to be under control. Mounds were not observed during 1979 in Hyde, Lenoir, or Beaufort Counties. Infestations are known to occur in Robeson, Columbus, Bladen, Duplin, Jones, Carteret, Pamlico, Onslow, Brunswick, New Hanover, Pender, and Craven Counties.

During 1979, a total of 90 confirmed cases of SCREWORM (Cochliomyia hominivorax) was reported in the continental United States as follows: Texas 32, New Mexico 14, Arizona 41, Nevada 1, and California 2. This grand total is a sharp decrease from the 7,230 confirmed cases in 1978. Almost 18,000 cases were reported in Mexico. Sterile screwworm fly releases in the U.S. totaled 2 billion over the southwestern area in 1979. Over 16 billion sterile flies were released within the eradication zone in Mexico. 1/

1/ Contributed by J.L. Hourrigan, Veterinary Services, Hyattsville, Maryland.

CONTRIBUTORS

DISEASES

KANSAS

T. Sim, IV

MICHIGAN

B.P. Singh

NEBRASKA

S. Poe

NEW MEXICO

G.L. Nielsen

WISCONSIN

O.L. Lovett

NEW MEXICO

G.L. Nielsen

NORTH CAROLINA

T.N. Hunt

OKLAHOMA

D.C. Arnold

OREGON

R. Penrose

PENNSYLVANIA

K.C. Kim

SOUTH CAROLINA

M.E. Gilreath

WASHINGTON

E.C. Klostermeyer

WISCONSIN

O.L. Lovett

INSECTS

ARKANSAS

M.A. Mayse

CALIFORNIA

C.S. Papp

DELAWARE

P.P. Burbutis

FLORIDA

F.W. Mead

ILLINOIS

K.D. Black

INDIANA

R.W. Meyer

KENTUCKY

P.E. Sloderbeck

MICHIGAN

G.A. Dunn

MINNESOTA

D.D. Sreenivasam

NEW HAMPSHIRE

J.F. Burger

ESTIMATED LOSSES FROM RUST IN 1979

Compiled by David L. Long 1/

Acreage harvested and yield and production records based on Crop Production 1979 Annual Summary, USDA, CPr2-1 (80). Loss data, summary of estimates by personnel of the State Departments of Agriculture, University extension and research projects, Plant Protection Programs of the Animal and Plant Health Inspection Service, the Science and Education Administration, USDA, Crop Quality Council, and the Cereal Rust Laboratory.

WINTER WHEAT

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to -					
				Stem rust		Leaf rust		Stripe rust	
				Per- cent	1,000 bushels	Per- cent	1,000 bushels	Per- cent	1,000 bushels
Alabama	95	26.0	2,470	Trace	Trace	2.0	50.4		
Arkansas	420	35.0	14,700	0	0	2.0	300.0		
California	780	70.0	54,600	0	0	Trace	Trace	Trace	Trace
Colorado	2,600	26.0	67,600	0	0	Trace	Trace		
Georgia	160	35.0	5,600	Trace	Trace	Trace	Trace		
Idaho	850	42.0	35,700	0	0	Trace	Trace	Trace	Trace
Illinois	1,300	43.0	55,900	0	0	1.0	564.6	Trace	Trace
Indiana	945	47.0	44,415	0	0	1.0	445.6		
Iowa	72	37.0	2,664	Trace	Trace	Trace	Trace		
Kansas	10,800	38.0	410,400	Trace	Trace	2.0	8,375.5	Trace	Trace
Kentucky	290	38.0	11,020	0	0	Trace	Trace		
Louisiana	27	28.0	756	Trace	Trace	Trace	Trace		
Michigan	785	43.0	33,755	Trace	Trace	Trace	Trace		
Minnesota	51	35.0	1,785	Trace	Trace	Trace	Trace		
Mississippi	115	32.0	3,680	0	0	Trace	Trace		
Missouri	1,600	44.0	70,400	0	0	Trace	Trace		
Montana	2,250	25.5	57,375	0	0	Trace	Trace	0	0
Nebraska	2,550	34.0	86,700	Trace	Trace	Trace	Trace		
North Carolina	210	36.0	910	0	0	1.0	9.2		
North Dakota	120	22.0	2,640	Trace	Trace	Trace	Trace		
Ohio	1,320	48.0	63,360	0	0	Trace	Trace		
Oklahoma	5,700	38.0	216,600	Trace	Trace	7.0	16,303.2	Trace	Trace
Oregon	1,000	48.0	48,000	0	0	0.2	96.4	Trace	96.4
Pennsylvania	262	31.0	8,122	0	0	Trace	Trace		
South Carolina	109	33.0	3,597	0	0	Trace	Trace		
South Dakota	550	19.0	10,450	Trace	Trace	Trace	Trace		
Tennessee	295	34.0	10,030	0	0	Trace	Trace		
Texas	4,600	30.0	138,000	Trace	Trace	4.0	5,750.0	Trace	Trace
Virginia	180	35.0	6,300	0	0	0.5	31.7		
Washington	2,200	43.0	94,600	0	0	0.2	190.0	Trace	Trace
West Virginia	10	34.0	340	0	0	1.0	3.4	0.2	190.0
Wisconsin	38	43.0	1,634	Trace	Trace	0.5	8.2		
Wyoming	267	22.0	5,874	0	0	Trace	Trace		
U.S. TOTAL	43,572	36.9	1,608,897						
Total of above	42,551		1,569,977	Trace	Trace	2.00	32,128.2	0.02	286.4
Mean of above		36.9							

1/ USDA Cereal Rust Laboratory, University of Minnesota, St. Paul, MN 55108

SPRING WHEAT

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Stem rust			Losses due to -			Stripe rust	
				Per- cent	1,000 bushels		Per- cent	1,000 bushels		Per- cent	1,000 bushels
Colorado	41	63.0	2,583	0	0		Trace	Trace		Trace	Trace
Idaho	620	62.0	38,440	0	0		Trace	Trace		Trace	Trace
Minnesota	2,450	35.0	87,750	Trace	Trace		Trace	Trace		Trace	Trace
Montana	2,550	20.5	52,275	0	0		Trace	Trace		0	0
North Dakota	6,230	26.5	165,095	0	0		Trace	Trace		Trace	Trace
Oregon	245	38.0	9,310	0	0		0.2	18.7		0.2	18.7
South Dakota	2,090	22.0	45,980	0	0		Trace	Trace		Trace	Trace
Washington	780	30.0	23,400	0	0		0.2	47.0		0.2	47.0
Wisconsin	16	33.0	528	0	0		0.1	0.5		Trace	Trace
Wyoming	20	24.0	480	0	0		Trace	Trace		Trace	Trace
U.S. TOTAL	15,096	28.2	426,181								
Total of above	15,042		423,841	Trace	Trace		0.02	66.2		0.02	65.7
Mean of above		28.3									

DURUM WHEAT

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Stem rust			Losses due to -			Stripe rust	
				Per- cent	1,000 bushels		Per- cent	1,000 bushels		Per- cent	1,000 bushels
California	45	80.0	3,600	0	0		0	0		0	0
Minnesota	77	37.0	2,849	0	0		Trace	Trace		Trace	Trace
Montana	325	21.0	6,825	0	0		0	0		0	0
North Dakota	3,250	26.0	84,500	0	0		Trace	Trace		Trace	Trace
South Dakota	165	22.0	3,630	0	0		Trace	Trace		Trace	Trace
U.S. TOTAL	3,932	27.1	106,654								
Total of above	3,862		101,404	0	0		Trace	Trace		Trace	Trace
Mean of above		26.3								0	0

OATS

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to -			
				Stem rust	1,000 bushels	Per- cent	Crown Rust
				Per- cent	1,000 bushels	Per- cent	1,000 bushels
Alabama	25	41.0	1,025	0	0	1.0	10.4
Arkansas	32	65.0	2,080	0	0	Trace	Trace
California	85	55.0	4,675	0	0	1.0	47.2
Colorado	50	50.0	2,500	0	0	0	0
Georgia	59	54.0	3,186	0	0	Trace	Trace
Idaho	44	52.0	2,288	0	0	0	0
Illinois	270	60.0	16,200	0	0	Trace	Trace
Indiana	145	61.0	8,845	0	0	Trace	Trace
Iowa	1,000	63.0	63,000	Trace	Trace	Trace	Trace
Kansas	85	44.0	3,740	Trace	Trace	Trace	Trace
Kentucky	8	41.0	328	0	0	0	0
Michigan	270	61.0	16,470	0	0	0	0
Minnesota	1,490	57.0	84,930	0.5	435.5	2.0	1,742.2
Missouri	45	45.0	2,025	0	0	0	0
Montana	140	39.0	5,460	0	0	0	0
Nebraska	380	53.0	20,140	Trace	Trace	Trace	Trace
North Carolina	95	56.0	5,320	0	0	Trace	Trace
North Dakota	840	44.0	36,960	0.5	191.5	3.0	1,149.0
Ohio	340	70.0	23,800	0	0	Trace	Trace
Oklahoma	95	48.0	4,560	Trace	Trace	5.0	240.0
Oregon	65	64.0	4,160	0	0	0	0
Pennsylvania	335	55.0	18,425	Trace	Trace	Trace	Trace
South Carolina	59	54.0	3,186	0	0	Trace	Trace
South Dakota	1,970	50.0	98,500	0.5	510.4	3.0	3,062.2
Tennessee	27	41.0	1,107	0	0	0	0
Texas	400	42.0	16,800	4.0	714.9	2.0	357.4
Virginia	35	49.0	708	0	0	0	0
Washington	33	53.0	1,715	0	0	0	0
West Virginia	12	51.0	1,749	0	0	0	0
Wisconsin	980	57.0	55,860	Trace	Trace	1.0	564.2
Wyoming	46	44.0	2,024	0	0	0	0
U.S. TOTAL	9,831	54.4	534,386				
Total of above	9,460		511,766	0.36	1,852.3	1.38	7,172.6
Mean of above		54.1					

BARLEY

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to -				Stripe rust 1,000 bushels
				Stem rust		Leaf rust		
				Per- cent	1,000 bushels	Per- cent	1,000 bushels	
California	790	60.0	47,400	0	0	1.0	478.8	0
Colorado	290	69.0	20,010	0	0	0	0	0
Idaho	850	58.0	49,300	0	0	0	0	0
Illinois	7	47.0	329	0	0	0	0	0
Kansas	60	45.0	2,700	Trace	Trace	Trace	Trace	Trace
Kentucky	25	50.0	1,250	0	0	0	0	0
Michigan	17	47.0	799	0	0	0	0	0
Minnesota	770	53.0	40,810	Trace	Trace	Trace	Trace	Trace
Montana	1,040	39.0	40,560	0	0	Trace	Trace	Trace
Nebraska	28	43.0	1,204	0	0	Trace	Trace	Trace
North Carolina	61	51.0	3,111	0	0	Trace	Trace	Trace
North Dakota	1,650	46.0	75,900	Trace	Trace	Trace	Trace	Trace
Ohio	9	52.0	468	0	0	0	0	0
Oklahoma	55	46.0	2,530	Trace	Trace	5.0	133.2	Trace
Oregon	160	50.0	8,000	0	0	Trace	Trace	Trace
Pennsylvania	115	47.0	5,405	0	0	Trace	Trace	Trace
South Carolina	23	48.0	1,104	0	0	0	0	0
South Dakota	500	40.0	20,000	Trace	Trace	Trace	Trace	Trace
Tennessee	13	46.0	598	0	0	Trace	Trace	Trace
Texas	50	46.0	2,300	Trace	Trace	1.0	6.0	0
Virginia	100	52.0	5,200	0	0	2.0	46.9	0
Washington	315	54.0	17,010	0	0	0	0	0
West Virginia	10	41.0	410	Trace	Trace	0.2	34.1	Trace
Wisconsin	24	49.0	1,176	0	0	Trace	Trace	Trace
Wyoming	141	60.0	8,460	0	0	0	0	0
U.S. TOTAL	7,468	50.6	378,067				699.0	0
Total of above	7,103		356,034	Trace	Trace	0.20		0
Mean of above		50.1						

RYE

State	1,000 of acres harvested	Yield in bushels per acre	Production in 1,000 of bushels	Losses due to -			
				Stem Rust	Leaf Rust	Per-	1,000
				cent	cent	cent	bushels
Colorado	5	20.0	100	0	Trace	Trace	Trace
Georgia	110	21.0	2,310	Trace	Trace	Trace	Trace
Illinois	17	23.0	391	0	0	0	0
Indiana	8	26.0	208	0	0	0	0
Kansas	18	28.0	504	0	0	0	0
Kentucky	4	24.0	96	0	0	0	0
Michigan	25	25.0	625	0	Trace	Trace	Trace
Minnesota	91	25.0	2,275	Trace	Trace	Trace	Trace
Missouri	8	23.0	184	0	Trace	Trace	Trace
Nebraska	50	22.0	1,100	0	0	0	0
North Carolina	20	23.0	460	Trace	Trace	Trace	Trace
North Dakota	185	28.0	5,180	Trace	Trace	Trace	Trace
Ohio	8	30.0	240	0	0	0	0
Oklahoma	35	26.0	910	0	0	0	0
Oregon	7	24.0	168	0	0	0	0
Pennsylvania	17	27.0	459	0	0	0	0
South Carolina	31	21.0	651	Trace	Trace	Trace	Trace
South Dakota	210	30.0	6,300	Trace	Trace	Trace	Trace
Texas	27	19.0	513	0	0	0	0
Virginia	16	24.0	384	0	0	0	0
Wisconsin	16	23.0	368	0	Trace	Trace	Trace
Wyoming	3	17.0	51	0	0	0	0
U.S. TOTAL	949	25.9	24,549				
Total of above	911		23,477	Trace	Trace	Trace	Trace
Mean of above		25.8					

U.S. Dept. Agric.
Coop. Plant Pest Rep.
5(10):212-216

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142881

34/033NIDLANESR R1 CPR-0001
DR ~~IVAN W KIRK~~ ASST AD
USDA SER SR LIBRARY
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



258
823
253

Operative PLANT PEST REPORT

U.S.
DEPARTMENT
OF AGRICULTURE

5/7
April 11, 1980

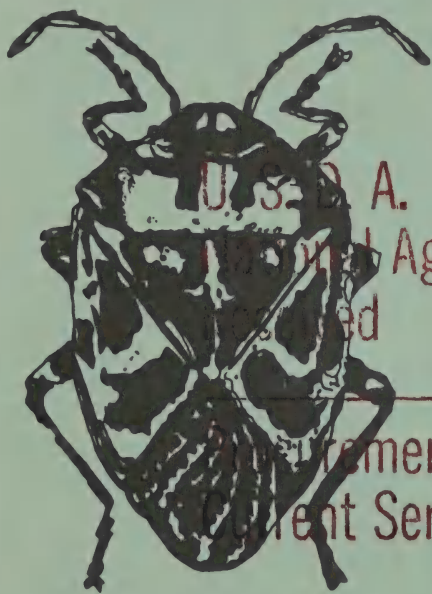
Vol. 5
No. 11

Animal
and Plant
Health
Inspection
Service

SOIL REG. RES.
CTR. USDA
LIBRARY

APR 30 1980

RECEIVED



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

ALFALFA WEEVIL larvae 2 or more per alfalfa terminal in parts of Oklahoma, Kentucky, and North Carolina. (p. 220-221).

Detection

New State records include an APHID in Idaho and PINEWOOD NEMATODE in Maryland. (p. 222).

For new county records, see page 224.

New hosts for PINEWOOD NEMATODE in Kentucky (p. 222), SEQUOIA PITCH MOTH in California (p. 223), and MELON FLY in Hawaii (p. 224).

Some First Occurrences of Season

ARMY CUTWORM on wheat in South Dakota and larvae on alfalfa in Kentucky. ALFALFA WEEVIL larvae and adults in Indiana. BLUE ALFALFA APHID in Oklahoma. WESTERN TENT CATERPILLAR larvae in Kansas. EASTERN TENT CATERPILLAR larvae in Arkansas. SPRING CANCERWORM adults in Minnesota. An ICHNEUMONID WASP in Oklahoma.

Reports in this issue are for the week ending April 4 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Insects.....	219	Deciduous Fruits and Nuts Insects.....	222
Small Grains Insects.....	219	Ornamentals Insects.....	222
Turf, Pastures, Rangeland Insects.....	220	Forest and Shade Trees Diseases.....	222
		Insects.....	223
Forage Legumes Insects.....	220	Man and Animals Insects.....	223
Soybeans Insects.....	221		
Beneficial Organisms and Their Enemies Insects.....	223		
Federal and State Programs Insects.....	223		
Hawaii Pest Report.....	224		
Light Trap Collections.....	224		
Detection.....	224		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	225		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - MINNESOTA - District> County= percent infestation and overwintering survival in number of fields (f): SE> Goodhue= 14 and 74 in 8f, and SC> La Sueur= 23 and 79 in 4f. (D.D. Sreenivasam). WISCONSIN - Corn stubble dissection indicates about normal winter survival in southern area. District> County= winter survival: SW> Iowa= 88%, SC> Rock= 90%, Columbia= 67% (small sample), and Dane= 92%, degree-day accumulations (base 10° C) March 1 through April 2 total 7.2. Mortality apparently due to stalk breakage during harvest not included. (O.L. Lovett).

BLACK CUTWORM (*Agrotis ipsilon*) - KANSAS - Adult male pheromone trap counts March 27 to April 4 (K.O. Bell, Jr.):

District> County	Number of adult(s)		Number of night(s)	City
	Trap 1	Trap 2		
NE> Jefferson	3	8	9	Valley Falls
NE> Pottawatomie	1	1	3	Wamego
NE> Pottawatomie	1	0	1	Wamego
NE> Pottawatomie	7	1	1	Wamego
NE> Pottawatomie	0	0	2	Wamego
EC> Douglas	0	0	4	Baldwin
EC> Douglas	2	0	7	Baldwin
EC> Shawnee	1	7	2	Rossville
EC> Shawnee	2	3	3	Rossville

MISSOURI - District> County= black cutworm pheromone trap counts: SC> Howell= 14 males in 4 traps at 2 sites. (R.E. Munson).

SMALL GRAINS

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= status on wheat week ending March 28: SC> Jefferson= damaging and WC> Washita= 2-3 per 0.09 sq m. (D.C. Arnold). KANSAS - District> County= larvae (13-25 mm long) on wheat [host stage] in number of fields (f): SE> Montgomery= trace [leaf sheaths lengthen], number of fields not given; Montgomery, Woodson, Wilson, and Chautauqua= none [tillers formed to leaf sheaths lengthen] in 7f (S.C. White); SC> Barber, Harper, Sumner, and Comanche= counts not made [tillers formed to first node of stem visible], no noticeable feeding damage in 5f (G.A. Salisbury). SOUTH DAKOTA - First of season. District> County= status on winter wheat: SC> Jones= active in Murdo area, March 28, normally starts early April and continues into early May. (D.D. Walgenbach).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - District> County= counts per 0.09 sq m of wheat week ending March 28: WC> Washita= 10,000 in 1 field, light in 15 other fields. (D.C. Arnold). KANSAS - District> County= status on wheat [host stage] in number of fields (f): SE> Chautauqua= averaged 0.5 [tillers formed] per 0.3 row m in 1f, Montgomery= trace [tillers formed to leaf sheaths lengthen] in 2f, Montgomery, Labette, Wilson, and Woodson= none [tillers formed to leaf sheaths lengthen] in 5f (S.C. White); SC> Barber, Harper, Sumner, and Comanche= none [tillers formed to first node of stem visible] in 5f (G.A. Salisbury).

CORN LEAF APHID (Rhopalosiphum maidis) - NEVADA - District> County= average of this species and an APHID (Rhopalosiphum padi) per sweep of barley week ending March 28: S> Clark= 50 on 80.9 ha at Las Vegas. (T. Smigel, D. Zoller).

AN APHID (Rhopalosiphum padi) - KANSAS - District> County= status of this species, WINTER GRAIN MITE (Penthaleus major), and BROWN WHEAT MITE (Petrobia latens) on wheat [host stage] in number of fields (f): SE> Woodson, Wilson, Montgomery, Labette, and Chautauqua= none [tillers formed to leaf sheaths lengthen] in 8f (S.C. White); SC> Barber, Harper, Sumner, and Comanche= none [leaf sheaths lengthen to first node of stem visible] in 4f; and Barber= Penthaleus major trace [not given] in 1f (G.A. Salisbury).

TURF, PASTURES, RANGELAND

INSECTS

WINTER GRAIN MITE (Penthaleus major) - OHIO - District> County= adults per 0.09 sq m of bentgrass: SW> Hamilton= 895 at golf course. (K.T. Power).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (Hypera postica) - OKLAHOMA - District> County= infested alfalfa terminals and eggs per 0.09 sq m week ending March 28: C> Grady= averaged 25% and 41, Payne= averaged 36% and no data, and SC> Stephens= 15-85% and 70 with larvae up to 8-10 per terminal. (D.C. Arnold). KANSAS - District> County= percent alfalfa [7-13 cm tall] terminals with feeding damage in number of fields (f): SE> Montgomery= 5-20 in 2f, Wilson= 25 in 1f, and Labette= 2 in 1f (S.C. White), SC> Harper, Barber, Sumner, and Comanche= none from 100 stem samples in 4f (G.A. Salisbury).

MISSOURI - District> County= alfalfa weevil eggs per 0.09 sq m of alfalfa stubble samples week ending March 29: NE> Clark= 31, Lewis= 39, Ralls= 456, and Scotland= 7. Currently: SW> Christian= averaged 137, Greene= 396, no hatch observed, C> Boone= 152, Cooper= 35, Pettis= 124, and Saline= 103. Larvae reported from west-central, south-central, southeastern, and east-central areas. (R.E. Munson).

KENTUCKY - Area> alfalfa weevil larval status on alfalfa: Statewide> 1st and 2nd instars and occasional 3rd instar in growing tips, mostly confined to protected area between folded, developing leaflets, damage not noticeable. Results of visual observations on 30 stems (P.E. Sloderbeck):

<u>District> County</u>	<u>Larval average per stem</u>	<u>Host height (cm)</u>
C> Barren	1.5	10
C> Barren	1.6	6.4
Bluegrass> Fayette	2.1	5.8

INDIANA - Cool weather kept overt alfalfa weevil activity almost to standstill. District> County= status on alfalfa [2-4 cm tall] week ending March 28: SC> Jackson, Washington, and Harrison= eggs on March 24 not significantly different from March 17, averaged about 50 per 15 sq cm (blender extraction). Larvae not greater than 1 per 20 stems in past 2 weeks, no adults swept from any field, egg viability March 17 about 50% (blender extraction). Currently, first adults and 1st instar larvae of season on alfalfa [averaged 3.1 cm tall]: SC> Harrison, Washington, and Jackson= infestation up to 10% in 4 of 8 fields. Eggs about 50% viable, 25% hatch in average of about 40 heat units (base 6.7°C) compared with 55.6 previous week. (R.W. Meyer).

NORTH CAROLINA - District> County= alfalfa weevil status on alfalfa: Central Piedmont> Wake= 2nd to 3rd instar larvae averaged about 2 per tip on 70-80% of tips in 4 fields 2-8.1 ha in size. Rapid larval development expected next 10 days. Chemical controls should be applied in most Piedmont fields soon, and by April 15 in most mountain counties. (D. Berle).

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - District> County= counts per 0.3 m of alfalfa week ending March 28: WC> Washita= 10 in 1 field. (D.C. Arnold).

ARMYWORM (Pseudaletia unipuncta) - KENTUCKY - First larva of season. District> County= larva on alfalfa: C> Barren= swept from field March 31. (P.E. Sloderbeck).

PEA APHID (Acyrtosiphon pisum) - OKLAHOMA - District> County= counts per 10 sweeps of alfalfa week ending March 28: C> Payne= 15, Grady= 10, and SC> Stephens= 5. (D.C. Arnold). KANSAS - District> County= average per 100 stems of alfalfa [host height] in number of fields (f): SE> Montgomery= 1,010 with 20 BLUE ALFALFA APHID (Acyrtosiphon kondoi) [10 cm tall] in 1f, slight yellowing of foliage noted; and Montgomery, Wilson, and Labette= 10-140 [7-13 cm tall] in 3f, no yellowing. (S.C. White). INDIANA - Area> early instars per 20 stems of forage legumes week ending March 28: SC> no greater than 4, Aphidius sp. (an aphidiid wasp) light in few fields. (R.W. Meyer).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OKLAHOMA - First of season. District> County= status on alfalfa week ending March 28: C> Grady= 1 specimen found. (D.C. Arnold).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - District> County= counts per sweep of hay alfalfa week ending March 28: S> Clark= 3-5 on 80.9 ha at Las Vegas. (T. Smigel, D. Zoller).

MEADOW SPITTLEBUG (Philaenus spumarius) - KENTUCKY - District> County= nymphs on 30 stems of alfalfa: C> Barren= light, four 1st or 2nd instars, March 31. (P.E. Sloderbeck).

SOYBEANS

INSECTS

GRAPE COLASPIS (Colaspis brunnea) - ARKANSAS - Survey for overwintering larvae in harvested soybean fields. Soil core (diameter 10 cm) from 12 sites in each field. (M.A. Mayse).

District> County	Larvae per 12 cores at depth of		Field number
	9-18 cm	18-23 cm	
NE> Clay	9	21	1
NE> Clay	31	11	2
NE> Clay	13	62	3
NE> Clay	35	52	4

DECIDUOUS FRUITS AND NUTS

INSECTS

WESTERN TENT CATERPILLAR (Malacosoma californicum) - KANSAS - First of season. District> County= larvae on wild plum: SC> Comanche= hatched. (G.A. Salisbury).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - ARKANSAS - First larvae of season. Area> status on wild Prunus spp.: W> constructing tents in crotches of trees as far north as Washington County. (M.A. Mayse). NORTH CAROLINA - District> County= status on wild cherry and crabapple trees: Northern Piedmont> Granville, Franklin, and Central Piedmont> Wake= tents 6-26 sq cm, first hatch about 10 days earlier in 1979. (T. Hunt).

WINTER MOTH (Operophtera brumata) - OREGON - County= larvae per leaf cluster of filberts: Washington= 1.72 on March 31 and 1.63 on March 28. First 2nd instar larva found March 31; of 174 larvae, all but 1 still 1st instar, populations continued increase in abandoned orchard near Tigard. (R.L. Penrose).

ORNAMENTALS

INSECTS

AN APHID (Anoecia cornicola) - IDAHO - New State record. District> County= collection data from Cornus sericea (Red-osier dogwood): E> Franklin= at Cub River Canyon, June 29, 1979, by G.F. Knowlton, determined by A.G. Robinson. (H.W. Homan).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - KENTUCKY - New host record for State. District> County= status on Pinus strobus (eastern white pine): Bluegrass> Fayette= found in sample. (P.E. Sloderbeck). MARYLAND - New State and county records. District> County= collection data from Pinus spp. (pines): NC> Baltimore= adults from Pinus sylvestris (Scotch pine) at Sparks, August 6, 1979, by E. Ford, determined by W. Friedman; Montgomery= adults from Pinus nigra (Austrian pine) at Gaithersburg, February 8, 1980, by L.B. Holdeman, determined by R. Hackney and W. Friedman; and S> Prince Georges= adults from Pinus thunbergiana (Japanese black pine) at Bowie, March 7, 1980, by R. Dekker, determined by L.R. Krusberg and W. Friedman. (R. Dekker).

INSECTS

SEQUOIA PITCH MOTH (*Synanthedon sequoiae*) - CALIFORNIA - New host record for State. District> County= collection data from Pinus sylvestris (Scotch pine): Central Coast> Napa= larvae 5 per limb at residence at Saint Helena, by H. Stabo, January 18, 1979, determined by T.D. Eichlin. Host in locality 4+ years. (R.T. Robbins).

SPRING CANKERWORM (*Paleacrita vernata*) - MINNESOTA - First adults of season. District> County= status: EC> Hennepin= males March 19 and females March 28 in Minneapolis area, damaging populations expected in southern and southwestern portions of Minneapolis, and Ramsey= females on American elm week ending March 28 in St. Paul area. (D.D. Sreenivasam).

MAN AND ANIMALS

INSECTS

BLACK FLIES - NEW HAMPSHIRE - Area> status of Prosimulium mixtum, Stegopterna mutata, and Simulium vittatum: S> larvae, about 90% full-grown, pupation expected April 1-5, when stream temperatures reach 5°C and ponds ice free. (J. F. Burger).

MOSQUITOES - OHIO - District> County= status week ending March 21: C> Franklin and Delaware= 1st and 2nd instar *Aedes canadensis* larvae in pools, overwintered *Culex* and *Anopheles* adults active, no biting as of late March. (R. Berry).
NEW HAMPSHIRE - Area> status of Aedes provocans and Aedes abserratus March 24-30: SE> entered 2nd instar in breeding sites. Cool, wet weather slowed hatch and development of other early spring species. (J.F. Burger).

WINTER TICK (*Dermacentor albipictus*) - COLORADO - District> County= status on cattle: EC> Yuma= infested 1 herd. (S.L. Pilcher).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

AN ICHNEUMONID WASP (*Bathyplectes curculionis*) - OKLAHOMA - First of season. District> County= counts March 19: SC> Stephens= 2 females per 50 sweeps of alfalfa. (D.C. Arnold).

FEDERAL AND STATE PROGRAMS

INSECTS

SCREWWORM (*Cochliomyia hominivorax*) - No cases reported from continental United States, March 16-29. Total of 6 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 314 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 14,240,665, all in Texas. Total of 298,726,535 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - MELON FLY (Dacus cucurbitae) - New host record. Island= status on Raphanus sativus (daikon): Oahu= 3 adults reared from 2 rotting roots collected from field at Waikane, March 7, 1980, by L.M. Nakahara, determined by S.Y. Higa. Many roots damaged from rotting internally, 30% of plants in 92.90 sq m planting. Unknown at this time whether eggs laid in/on healthy or rotting daikon roots. Rotting believed caused by secondary organisms. (L.M. Nakahara).

LIGHT TRAP COLLECTIONS

INDIANA - Tippecanoe County, 4/3, BL - BLACK CUTWORM (Agrotis ipsilon) 0, CORN EARWORM (Heliothis zea) 0, EUROPEAN CORN BORER (Ostrinia nubilalis) 0, GRANULATE CUTWORM (Feltia subterranea) 0, VARIEGATED CUTWORM (Peridroma saucia) 0, MISSISSIPPI - Stoneville, 3/21-4/3, temp. 5.6-23°C, precip. 120 mm, 2BL - ARMYWORM (Pseudaletia unipuncta) 267, black cutworm 80, variegated cutworm 65, YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 1.

DETECTION

NEW STATE RECORD

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - MARYLAND - Baltimore County. (p. 222).

INSECTS

A TABANID FLY (Chrysops upsilon) - OKLAHOMA - District> County= collection data: SE> Le Flore= specimen taken from carbon dioxide baited malaise trap at Poteau, July 10, 1979, by D.A. Ehrhardt, determined by R.E. Wright; confirmed by L.L. Pechuman. (D.C. Arnold).

NEW COUNTY RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - MARYLAND - Montgomery and Prince Georges. (p. 222).

INSECTS

AN APHID (Anoecia cornicola) - IDAHO - Franklin. (p. 222).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

	Life Stage	Host	Probable Origin	Port of Entry	Officer	Destination
<u>Callosobruchus phaseoli</u> (Gyll.) a bruchid beetle Det. J.M. Kingsolver	adult	with Leguminosae (pod) from baggage	India	Los Angeles	J. Cullen	CA
<u>Lipara lucens</u> Meigen a chloropid fly Det. C.W. Sabrosky	adult	in reed mats from cargo	Hungary	Port Everglades	A. Modery	FL
<u>Nesosa</u> sp. a cerambycid beetle Det. D.M. Anderson	larval	in wood crates with iron castings	Republic of China	New York	O. Andrade	NJ
<u>Ovalisia</u> sp. a buprestid beetle Det. J.M. Kingsolver	larval	in dunnage	Japan	New York	R. Sanks	NY
<u>Phloeosinus rudis</u> Blandford a scolytid beetle Det. D.M. Anderson	larval pupal adult	in dunnage	Japan	New York	R. Sanks	NY
<u>Trypodendron domesticum</u> (Linnaeus) a scolytid beetle Det. D.M. Anderson	adult	in wood pallet with roofing material	West Germany	New York	D. Smawley	NJ
<u>Bradybaena serotina</u> Adams a bradybaenid snail Det. R. Munkittrick	adult	on military household goods	Okinawa	Los Angeles	C. Grimes	CA
<u>Helicella conspurcata</u> (Draparnaud) a helicid snail Det. R. Munkittrick	adult	on military cargo	Italy	McGuire AFB	H. Mumma	VA

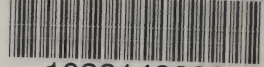
METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142882

34/033NIDLANESR R1 CPR-0001
~~DR IVAN W KIRK ASST AD~~
USDA SER SR *LIBRARY*
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



Q5B
823
2253

Cooperative PLANT PEST REPORT

U.S.
DEPARTMENT
OF AGRICULTURE

April 18, 1980

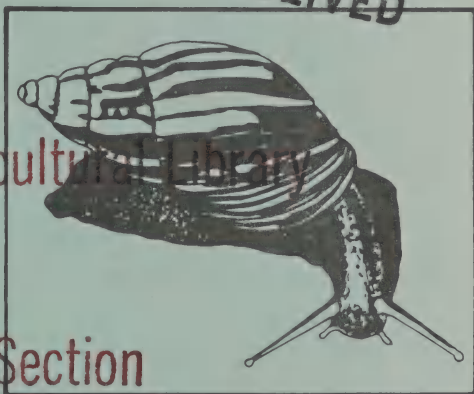
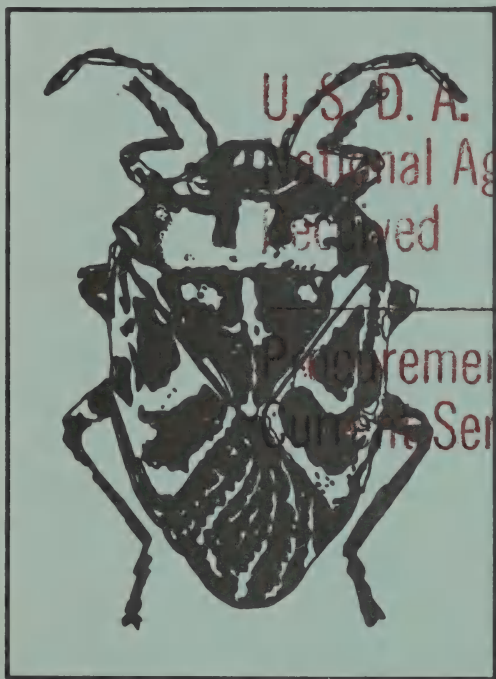
Vol. 5
No. 12

Animal
and Plant
Health
Inspection
Service

SOU. REG. RES.
CTR. USDA
LIBRARY

APR 30 1980

RECEIVED



U.S.D.A.
National Agricultural Library
Received
Plant and Soil
Improvement Section
Current Serial Records

This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

Heavy GREENBUG counts on small grains in New Mexico, Texas, and Oklahoma. (p. 229-230).

BROWN WHEAT MITE hotspots on wheat in parts of Texas and Oklahoma. (p. 230).

CLOVER LEAF WEEVIL moderate to heavy locally on alfalfa in eastern and south-central Kansas. (p. 232).

TOMATO/POTATO EARLY BLIGHT heavier than normal but under control on tomatoes in southern and central areas of Florida. (p. 234).

Detection

New State records include PINWOOD NEMATODE in Indiana and Ohio (p. 235), an IXODID TICK and an ARGASID TICK in Oklahoma (p. 237), and an INSECT FUNGUS in Illinois (p. 237).

For new county records see page 240.

Some First Occurrences of Season

WHEAT LEAF RUST in Texas. ARMYWORM adults in Oklahoma. EASTERN TENT CATERPILLAR in Maryland. SPRING CANKERWORM adults in Wisconsin. FACE FLY in New Hampshire. EASTERN SUBTERANNEAN TERMITE in Delaware. GRASSHOPPER nymphs in Idaho.

Reports in this issue are for the week ending April 11 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		Deciduous Fruits and Nuts	
Insects.....	229	Diseases.....	234
		Insects.....	234
Small Grains		Ornamentals	
Diseases.....	229	Diseases.....	234
Insects.....	229	Insects.....	235
Turf, Pastures, Rangeland		Forest and Shade Trees	
Insects.....	231	Diseases.....	235
		Insects.....	235
Forage Legumes		Man and Animals	
Insects.....	231	Insects.....	235
Cotton		Households and Structures	
Insects.....	233	Insects.....	237
Potatoes, Tomatoes, Peppers			
Diseases.....	234		
Beneficial Organisms and Their Enemies			
Diseases.....	237		
Insects.....	238		
Federal and State Programs			
Insects.....	238		
Hawaii Pest Report.....	239		
Light Trap Collections.....	239		
Detection.....	240		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	241		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - OHIO - District> County= overwintering larvae per stalk in field corn stubble April 7-9: SC> Pike= 0.04 and 0.13, SE> Meigs= 0.15, Athens= 0.15, Hocking= 0.10, and C> Fairfield= 0.05. (R.W. Wadleigh).

BLACK CUTWORM (*Agrotis ipsilon*) - OHIO - District> County= status in pheromone traps: NC> Ashland and C> Knox= males caught. (R.W. Wadleigh). ILLINOIS - Adult males throughout southern two-thirds of State. District> County= males in pheromone traps: NE> La Salle= small numbers and SE> Franklin= 31 in 1 trap since March 18. (K. Steffey, C. Bremer). WISCONSIN - District> County= males in pheromone traps: SC> Dane= none, probably due to below 10°C temperatures before dusk during last period. (O.L. Lovett).

SOUTHERN CORN ROOTWORM (*Diabrotica undecimpunctata howardi*) - TEXAS - Area> status on corn March 21: Lower Gulf Coast> infestation 1-3% in most fields, 10-15% of plants damaged in some fields. (J.A. Jackman).

SEEDCORN MAGGOT (*Hylemya platura*) - OKLAHOMA - District> County= larvae on silage corn: C> Cleveland= 2-20 per infested seed, destroyed stand in 48.6-ha field. (D.C. Arnold).

SMALL GRAINS

DISEASES

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) - TEXAS - First of season. District> County= infection on wheat: East Texas, North> Rusk= on plots in southern soft red winter wheat nursery at Overton, March 28. (L.R. Nelson).

SPECKLED LEAF BLOTCH (*Septoria tritici*) - OKLAHOMA - District> County= status on wheat: NC> Grant= prevalence 20%/severity 30% and C> Logan= on 'Vona' wheat. (K.E. Conway).

SOIL-BORNE WHEAT MOSAIC VIRUS - OKLAHOMA - District> County= status on wheat: NC> Noble, Garfield, and Major= prevalence 0-65% (averaged 30%), C> Logan= a PRIMITIVE ROOT FUNGUS (*Polymyxa graminis*) in roots of 'Vona' wheat; and Cleveland= may be causing yellowing of 'Vona' wheat, *Polymyxa graminis* in roots. (K.E. Conway).

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - TEXAS - District> County= counts per 0.3 row m of small grains March 17: Northern Low Plains> Hardeman and Southern Low Plains> Baylor= up to 4 each. (E.P. Boring, III). OKLAHOMA - District> County= counts per 0.3 row m of wheat: SW> Jackson and Kiowa= 0-2 in 12 fields. (D.C. Arnold).

ARMYWORM (*Pseudaletia unipuncta*) - OKLAHOMA - First of season. District> County= adults at lights: C> Payne= several noted. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - NEW MEXICO - District> County= nymphs and adults per 0.3 row m of wheat: NE> Quay= 1-200+ in fields in Tucumcari area;

Quay at San Jon and Union in Clayton area= none. (C. Heninger). TEXAS - Greenbug increased sharply on small grains in Rolling Plains and South Plains areas.

<u>District> County</u>	<u>Status per 0.3 row m</u>
March 17-19 (E.P. Boring, III):	
Southern Low Plains> Baylor	300-800 in some fields
Southern Low Plains> Stonewall	300-800 in some fields
Southern Low Plains> Baylor	5-60 in some fields
Cross Timbers> Throckmorton	300-800 in some fields
Cross Timbers> Archer	5-60 in some fields
Northern Low Plains> Foard	5-60 in some fields
Northern Low Plains> Hardeman	5-60 in some fields
Northern Low Plains> Wilbarger	5-60 in some fields
Northern Low Plains> Wichita	300-800 in some fields
Northern Low Plains> Wilbarger	300-800 in some fields
Rolling Plains area	yellowing in several counties
South Plains area	economic in several counties

March 31 to April 1 (C.L. Cole):

Cross Timbers> Archer	100+
Cross Timbers> Young	light to heavy
Southern Low Plains> Baylor	decreased
Southern Low Plains> Stonewall	some damage
Northern Low Plains> Cottle	some spraying
Northern Low Plains> Foard	800+ in spots
Northern Low Plains> Hardeman	800+ in spots
Northern Low Plains> Wilbarger	up to 600

OKLAHOMA - District> County= greenbug counts per 0.3 row m of wheat: SW> Jackson and Kiowa= 20-500 in 12 fields, damage not serious in any fields; Panhandle> Ellis= 50-100 in fields checked; Texas= averaged less than 1 in 4 fields; EC> Muskogee and NE> Wagoner= occasional winged aphid in 15 fields. (D.C. Arnold).

AN APHID (*Rhopalosiphum padi*) - TEXAS - District> County= counts per 0.3 row m of small grains March 17: Cross Timbers> Archer and Northern Low Plains> Foard= 1-10. Counts per 0.3 row m of small grains March 31: Northern Low Plains> Wilbarger= up to 25. (E.P. Boring, III). OKLAHOMA District> County= counts per 0.3 row m of wheat: Panhandle> Ellis= 150-300. (D.C. Arnold). IDAHO - District> County= average per 0.3 row m of wheat April 1: N> Latah= 10 on fall-planted wheat. (H.W. Homan).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OHIO - District> County= overwintered adults per sweep on winter wheat [emergence] April 7: SC> Scioto= 0.04, active. (R.W. Wadleigh).

BROWN WHEAT MITE (*Petrobia latens*) - NEW MEXICO - District> County= status on wheat: NE> Quay= in 1 field in Tucumcari area. (C. Heninger). TEXAS - District> County= counts per 0.3 row of small grains March 17-19: Southern Low Plains> Baylor and Cross Timbers> Throckmorton= up to 1,000. (E.P. Boring, III). OKLAHOMA - District> County= status on wheat: Panhandle> Texas= heavy numbers destroyed large spots in irrigated and dryland wheat south of Hardesty. (D.C. Arnold).

WINTER GRAIN MITE (*Penthaleus major*) - TEXAS - District> County= counts per 0.3 row m of small grains March 17: Cross Timbers> Throckmorton= 1,000+ in 1 field in northwestern area, and Archer and Southern Low Plains> Baylor= up to 22; maximum counts March 31: Cross Timbers> Archer= 20 and Northern Low Plains> Wilbarger= 200. (E.P. Boring, III).

TURF, PASTURES, RANGELAND

INSECTS

GREENBUG (*Schizaphis graminum*) - KENTUCKY - New county record. District> County= collection data from *Poa* sp. (a bluegrass): C> Jefferson= nymphs and adults on lawns at Louisville, September 1979, date unknown, collected and determined by D.A. Potter. (P.E. Sloderbeck).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEW MEXICO - District> County= counts on alfalfa: ME> Quay= 1st and 2nd instar larvae heavy, 11 in 1 field, and 1 larva and 1 adult in 1 of 5 fields. (C. Heninger). TEXAS - District> County= larvae per sweep of alfalfa March 21: Trans-Pecos> Hudspeth= 50+ at Fort Hancock. (J. A. Jackman). KANSAS - Low level larval hatch in south-central and southwestern areas. District> County= status on alfalfa: EC> Douglas and Franklin= feeding damage 1-10% on terminals in 5 fields, much may have been caused by CLOVER LEAF WEEVIL (*Hypera punctata*) (S.C. White, K.O. Bell, Jr.); SW> Gray= adults averaged 3 per 0.8 sq m with 12 unidentified larvae in 1 field, no adults in 2 other fields, unidentified weevil larvae averaged 4 per 0.09 sq m in 1 field [5-10 cm tall] (D.E. Mock). Survey by Berlese funnel on 100-stem samples per field April 4-10 (M.L. Shuman, G.A. Salisbury):

District> County	Main instars	Larvae per 100 stems	Average stem length (cm)
SW> Finney	1st, 2nd	3	3
SC> Kingman	1st	5	5
SC> Pratt	1st	3	5
SC> Kiowa	2nd, 3rd	4	5
SC> Edwards	-	0	8
SC> Pawnee	2nd	1	8
SC> Stafford	1st, 2nd	7	5
SC> Reno	2nd	1	10
SC> Sedgwick	2nd	3	15
SC> Harvey	1st, 2nd	6	15

ILLINOIS - District> County= alfalfa weevil eggs per 0.09 sq m of forage legumes March 24-27: MW> Stephenson= 0.25, Carroll= 1-11, Ogle= 4.8, SW> Clinton= 10.4-48, Washington= 24-26.4, Jackson= 8-9, and ESE> Marion= 91-184; current percent alfalfa [20-25 cm tall] terminals damaged in number of fields (f): SW> Johnson= 10% in 1f, SE> Massac, SW> Johnson and Union= 5% in 4f, and Monroe, St. Clair, Washington, and Jackson= less than 5% in 12f; larvae per 30 stems in number of fields (f): SW> Johnson= 31 in 1f, Union= 11 in 2f, and Jackson= 4-9 in 2f. (A.M. Agnello). NORTH CAROLINA - District> County= status on alfalfa tips: Central Piedmont> Chatham, Randolph, Northern Piedmont> Durham, and Orange= infested 50-80%. Controls should be applied immediately. (T. Hunt).

EGYPTIAN ALFALFA WEEVIL (*Hypera brunneipennis*) - ARIZONA - District> County= larvae and adults per 100 sweeps of alfalfa week of April 3: C> Maricopa= 22-120 and 30-64, and SW> Yuma= 50-100 and 10-20 (L. Blackledge et al.); currently: SE> Graham= 200-500 and no data, C> Maricopa= 6 and 6, Pinal= 37, and SW> Yuma= 4-164 and 2-4. (I. Pearson et al.).

CLOVER LEAF WEEVIL (*Hypera punctata*) - KANSAS - Moderate to heavy in localized situations in alfalfa fields in eastern and south-central areas. District> County= counts per crown of alfalfa unless stated otherwise [host height if given] in number of fields (f) if given: SC> Kiowa= heaviest, averaged about 12 in 1f [5 cm]; Kingman, Pratt, Edwards, Pawnee, Stafford, Reno, Sedgwick, and Harvey= generally scarce in 7f (G.A. Salsbury); SW> Gray= averaged at least up to 3 per 0.8 sq m in 1f (D.E. Mock); and Finney= larvae averaged 0, 0.4, and 0.2, 50 crowns examined per field, in 3f (M.L. Shuman); NE> Atchison= trace to 1 in 2f, Doniphan= 2.5, Jackson= 0.3, Pottawatomie= 1-2.2 in 2f, Marshall= trace, and Nemaha= 0.4 [2-10 cm] (B.D. Hilbert), Pottawatomie= 1.2-4.2 in 2f, Riley= 4.0 (K.O. Bell, Jr.); EC> Douglas= trace to 1 in 3f and Franklin= 0-0.4 in 2f [12-15 cm] (S.C. White); and Wabaunsee= 0.6 [5-7 cm] (K.O. Bell, Jr.). Survey by Berlese funnel on 100-stem samples per field April 4-10 (M.L. Shuman, G.A. Salsbury):

District> County	Larvae per 100 stems	Average stem length (cm)
SW> Finney	0	3
SC> Kingman	0	5
SC> Pratt	0	5
SC> Kiowa	1	5
SC> Edwards	0	8
SC> Pawnee	0	8
SC> Stafford	4	5
SC> Reno	0	10
SC> Sedgwick	1	15
SC> Harvey	6	15

ILLINOIS - District> County= clover leaf weevil larvae per 0.09 sq m of alfalfa: SW> Johnson= 14 in 1 field, many showed disease symptoms. (A.M. Agnello).

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= counts per 0.09 sq m of forage legumes: SW> Jackson, Tillman, and Harmon= 0-2 in fields checked. (D.C. Arnold). KANSAS - District> County= larvae per 0.09 sq m of alfalfa: SW> Finney= averaged 0.1-0.2 in 3 fields. (M.L. Shuman). NEBRASKA - District> County= status on alfalfa [seedling]: SW> Red Willow= stand loss 90% in 1 first year stand in eastern area, scattered larval feeding where growth delayed. (Klein).

PEA APHID (*Acyrtosiphon pisum*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Maricopa= 130-160, Pinal= 15-1,860, and SE> Graham= 600-700. (I. Pearson et al.). KANSAS - District> County= counts on alfalfa in number of fields (f): SW> Gray= trace in 1 of 3f (D.E. Mock); SC> Kiowa, Stafford, Reno, and Harvey= trace in 4f (G.A. Salsbury); NE> Riley, Pottawatomie, EC> Shawnee, and Wabaunsee= trace in 6f (K.O. Bell, Jr.); Douglas= averaged 0 to trace per 100 stems in 3f; and Franklin= averaged 60-170 per 100 stems in 2f (S.C. White). ILLINOIS - District> County= counts per 10 sweeps in alfalfa field: SE> Massac= 40-60 in 50-sweep sample. (A.M. Agnello).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - OKLAHOMA - District> County= counts of this species and PEA APHID (*Acyrtosiphon pisum*) on alfalfa: C> Grady= up to 300 per stem in 1 fall-seeded field, some plants dying and others severely stunted, SC> Stephens= up to 200 per stem (averaged 5,250 per 10 sweeps) in 1 established field with severe stunting, blue alfalfa aphid 95% of the 2 species in above fields; EC> Muskogee and NE> Wagoner= mixed infestations moderate; and SW> Jackson, Tillman, and Harmon= mostly pea aphid 1-10 per stem. (D.C. Arnold). KANSAS - District> County= blue alfalfa aphid counts on alfalfa [host height] in number of fields (f): SC> Kiowa, Stafford, Reno, and Harvey= none [4-15 cm] in 4f (G.A. Salisbury), and EC> Douglas and Franklin= none [12-15 cm] in 5f (S.C. White).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 300-2,000. (I. Pearson et al.). OKLAHOMA - District> County= counts on alfalfa: SW> Jackson, Harmon, and Tillman= 1-45 (averaged 8) per stem 40 in fields, and NE> Rogers and EC> Muskogee= moderate to heavy in few isolated fields. (D.C. Arnold).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa week of April 3: C> Maricopa= 0-300. (L. Blackledge et al.).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OHIO - District> County= status April 7-9: SE> Hocking= adults 0.01 per sweep in red clover and timothy field and 0.03 per sweep in alfalfa field, Athens SC> Pike, and Jackson= none red clover and orchardgrass, Jackson and SE> Hocking= none on red clover and timothy, and Athens and SC> Scioto= none on alfalfa and timothy. (R.W. Wadleigh).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Maricopa= no data and 3-20, Pinal= 12 and 19, SW> Yuma= 10 and 12-30, and SE> Graham= both 400-500. (I. Pearson et al.).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - TEXAS - Trap catches in cotton (J. Cocke et al.):

District> County	Adults per trap
Per week as of March 21:	
Lower Valley> Hidalgo at Weslaco	1
Lower Valley> Hidalgo at Raymondville	up to 13
Coastal Bend> Nueces and Kleberg	7.02
Coastal Bend> Refugio	3.2
March 28 to April 2:	
Lower Valley> Hidalgo at Weslaco	5
Lower Valley> Willacy at Raymondville	up to 7
Lower Rio Grande Valley area	mean of 3.3-49.4
Coastal Bend> Kleberg	0.25
Coastal Bend> Nueces	2.5
Lower Gulf Coast area	0-1
Coastal Bend> Nueces at Corpus Christi	heavy

ROLLWORM (Heliothis zea) - TEXAS - District> County= eggs and larvae per 100 cotton plants March 21: Coastal Bend> Nueces and Kleberg= 0-5 and 0-2, each (J.A. Jackman); status on cotton March 28 to April 2 (J. Cocke et al.):

<u>Area</u>	<u>Counts</u>	<u>Host stage</u>
Lower Rio Grande Valley	6 per trap per night	
Lower Rio Grande Valley	2 per trap per night	
Lower Rio Grande Valley	few eggs	4 leaf
Lower Gulf Coast	larvae 0-8 per 100 plants	-
Lower Gulf Coast	larvae 0-7 per 100 plants	-

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - District> County= status on cotton March 20 to April 2: Lower Valley> Hidalgo= present on plants [2 leaf] at Weslaco, and Lower Gulf Coast area> 0-3 per 100 plants. (J.W. Norman).

COTTON APHID (Aphis gossypii) - ARIZONA - District> County= adults per cotton leaf per 12 plants week of April 3: C> Maricopa= 1-3 and Pinal= 1-13. (M. Tanaka et al.).

POTATOES, TOMATOES, PEPPERS

DISEASES

TOMATO/POTATO EARLY BLIGHT (Alternaria solani) - FLORIDA - District> County= prevalence on tomatoes: S> Bradenton of Manatee and C> Ruskin of Hillsborough= heavier than normal, but under control, less than 1% of foliage infected. Infections began about March 6 on stems and moved into foliage. Growers forced to increase controls April 3. (D.J. Schuster).

DECIDUOUS FRUITS AND NUTS

DISEASES

FIRE BLIGHT (Erwinia amylovora) - OKLAHOMA - District> County= status on pear: EC> Cherokee= active on 'Aristocrat' grafts. (K.E. Conway).

INSECTS

APPLE GRAIN APHID (Rhopalosiphum fitchii) - OHIO - District> County= nymphs on apple [host stage] buds April 9: C> Fairfield= newly hatched 1st instars 1-5 on Red Delicious [early green tip], Stayman Winesap [early green tip], Turley Winesap [early green tip], Golden Delicious [silver tip], and Jonathan [silver tip] in commercial orchard. (R.W. Wadleigh).

APPLE RUST MITE (Aculus schlechtendali) - OHIO - District> County= active overwintering females on Red Delicious apple trees [green tip to 6.4 mm green] April 10: C> Fairfield= infested 39% of 40 buds in research orchard. (R.P. Holdsworth).

ORNAMENTALS

DISEASES

FIRE BLIGHT (Erwinia amylovora) - OKLAHOMA - District> County= status on Cotoneaster horizontalis cv. robustus (rock cotoneaster): EC> Cherokee= active. (K.E. Conway).

INSECTS

MOURNINGCLOAK BUTTERFLY (*Nymphalis antiopa*) - IDAHO - First of season. District> County= status: N> Latah= noted at Moscow. (W.F. Barr, S.T. Rose).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (*Bursaphelenchus lignicolus*) - MISSOURI - New county record. District> County= collection data from *Pinus sylvestris* (Scotch pine): NC> Randolph= 11 km east of Cairo, April 2, 1980. Collected and determined by A. Foudin. (A. Foudin). INDIANA - New State and county records. District> County= collection data from *Pinus* spp. (pines): SC> Harrison= from *Pinus sylvestris* (Scotch pine) [20 cm diameter breast height, 9.1 m tall] at New Salisbury, and Orange= from *Pinus virginiana* (Virginia pine) [13 cm diameter breast height, 6.1 m tall] at Paoli; both collected March 20, 1980, by P. Marshall, determined by A. Foudin. (P. Marshall). OHIO - New State record. District> County= collection data from *Pinus resinosa* (red pine): SW> Hamilton= larvae and adults collected at residence at Cincinnati, March 19, 1980, by R.M. Riedel and M.A. Heinlein, determined by R.M. Riedel and A.M. Golden. (R.E. Hite). MARYLAND - See page 236.

INSECTS

SOUTHERN PINE BEETLE (*Dendroctonus frontalis*) - SOUTH CAROLINA - Area> status April 7: Upper Piedmont> active, some infested areas up to 40 ha. Due to continued wet weather, salvage of destroyed timber still light. During February, 10,441 cords of pulpwood and 590,000 board feet of timber salvaged. (M.C. Remion).

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - MARYLAND - First of season. District> County= larval status: NC> Howard, Montgomery, and S> Prince Georges= tents less than 5 cm across. Populations moderate with spotty heavy infestations. (J.L. Hellman, R. Hochmuth).

SPRING CANKERWORM (*Paleacrita vernata*) - WISCONSIN - First of season. District> County= adults: SC> Dane= reported at Madison. (O.L. Lovett).

A MARGARODID SCALE (*Matsucoccus acalyptus*) - NEVADA - First eggs of season. District> County= status week ending April 4: W> Douglas= eggs and males present, and most females emerged. (R. Lauderdale).

MAN AND ANIMALS

INSECTS

FACE FLY (*Musca autumnalis*) - NEW HAMPSHIRE - County= adults: Stafford= first activity observed March 31, active around dairy and beef cattle barns on warm, sunny afternoons at Durham. (J.F. Burger).

AN IXODID TICK (*Ixodes cookei*) - OKLAHOMA - New county record. District> County= collection data from *Procyon lotor* (raccoon): SE> Le Flore= 3 nymphs collected on ranch 10 km southeast of Poteau, June 18, 1979, by H.G. Koch, determined by J. Keirans. (D.C. Arnold).

MARYLAND - New county records for pinewood nematode collected in 1980 (J.L. Hellman, R. Hochmuth):

District> County	Stage	Host	Area	Date	Collector	Determiner
Eastern Shore> Wicomico	adults	Pinus sylvestris (Scotch pine)	Mardela Springs	Mar 14	C. Sewell, R. Dekker	W.R. Friedman
Eastern Shore> Dorchester	adults	Pinus thunbergiana (Japanese black pine)	Cambridge	Mar 17	J. Bidwell	W.R. Friedman
NC> Carroll	adults	Pinus nigra (Austrian pine)	Finksburg	Mar 18	R. Dekker	W.R. Friedman
NC> Queen Annes	adults	Pinus sylvestris (Scotch pine)	Chester	Mar 27	R. Dekker	W.R. Friedman
Eastern Shore> Somerset	larvae, adults	Pinus strobus (Eastern white pine)	Princess Anne	Mar 27	C.E. Ashley, R.R. Whitney	W.P. Friedman
NC> Harford	larvae, adults	Pinus thunbergiana (Japanese black pine)	National Interstate Highway 95, roadside planting	Mar 27	R. Dekker	W.R. Friedman
S> Anne Arundel	larvae, adults	Pinus sylvestris (Scotch pine)	Sandy Point State Park	Mar 31	R. Dekker	W.R. Friedman
NC> Howard	larvae, adults	Pinus virginiana (Virginia pine)	63.7 km southbound on National Interstate Highway 95	Apr 7	M. Goff	L.R. Krusberg

AN IXODID TICK (*Ixodes woodi*) - OKLAHOMA - New State record. District> County= collection data from Neotoma floridana (eastern wood rat): SE> Le Flore= 2 nymphs and 8 larvae collected on ranch 10 km southeast of Poteau, April 17, 1978, by H.G. Koch, determined by J. Keirans. Nymph collected from same host species and location, May 9, 1979. (D.C. Arnold).

AN ARGASID TICK (*Ornithodoros hermsi*) - OKLAHOMA - New State record. District> County= collection data from Marmota monax (woodchuck): SE> Le Flore= 4 nymphs collected on ranch 10 km southeast of Poteau, April 16, 1979, by H.G. Koch, determined by J. Keirans. (D.C. Arnold).

HOUSEHOLDS AND STRUCTURES

INSECTS

EASTERN SUBTERRANEAN TERMITE (*Reticulitermes flavipes*) - DELAWARE - First swarms of season. District> County= status April 9: N> New Castle= swarmed from residence. (P.P. Burbutis).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (*Entomophthora phytonomi*) - ILLINOIS - New State and county records. Collected from Hypera postica (alfalfa weevil) on Medicago sativa (alfalfa) in 1979. All determined by J.V. Maddox. (A.M. Agnello).

District> County	City	Date	Collector
SW> Washington	Lively Grove	May 11	R.J. Barney
SW> Clinton	Posey	May 15	R.J. Barney, E.J. Armbrust
SW> Perry	Pickneyville	May 15	R.J. Barney, E.J. Armbrust
SW> Randolph	Eden	May 15	R.J. Barney
SW> Johnson	Vienna	May 17	K.D. Black
SW> Williamson	Cereal Springs	May 17	K.D. Black
SW> St. Clair	St. Libory	May 16	E.J. Armbrust
SE> Jefferson	Ashley	May 16	R.J. Barney
NW> Stephenson	Dakota	Jun 20	P.L. Watson
NW> Winnebago	Durand	Jun 20	P.L. Watson
NW> Carroll	Savanna	Jun 20	P.L. Watson
NW> Ogle	Flag Center	Jun 20	P.L. Watson
NW> Mercer	Aledo	May 30	K.D. Black
W> Adams	Ursa	May 29	K.D. Black
C> Menard	Petersburg	May 29	K.D. Black
WSW> Greene	White Hall	May 21	K.D. Black
WSW> Montgomery	Raymond	May 15	R.J. Barney, E.J. Armbrust
WSW> Madison	Marine	May 16	E.J. Armbrust
WSW> Bond	Greenville	May 15	R.J. Barney, E.J. Armbrust
WSW> Macoupin	Blend	May 16	E.J. Armbrust
WSW> Christian	Vanderville	May 14	K.D. Black
WSW> Pike	Barry	May 15	K.D. Black
ESE> Clark	McKeen	May 23	K.D. Black
ESE> Effingham	Watson	May 23	K.D. Black

District> County	City	Date	Collector
ESE> Lawrence	St. Francisville	May 23	K.D. Black
ESE> Marion	Salem	May 16	R.J. Barney
ESE> Fayette	Brownstown	May 16	K.D. Black

INSECTS

CONVERGENT LADY BEETLE (Hippodamia convergens) - NEW MEXICO - District> County= larvae of mainly this species per 0.3 row m of small grains: NE> Quay= averaged 5-20 in Tucumcari area. (C. Heninger). TEXAS - District> County= counts per 0.3 m of dryland wheat from Schizaphis graminum (greenbug) survey March 7-19: Northern High Plains> Castro= 1-5 and Armstrong= 0-2. (N.E. Daniels).

AN APHIDIID WASP (Lysiphlebus testaceipes) - TEXAS - District> County= percent parasitized Schizaphis graminum (greenbug) in dryland wheat March 7-19: Northern High Plains> Swisher= 2%. (N.E. Daniels).

A BRACONID WASP (Microctonus aethiopoides) - OHIO - District> County= percent parasitism in 100 Hypera postica (alfalfa weevil) adults, April 2: NE> Wayne= 29% by overwintering generation. (J. Flessel).

FEDERAL AND STATE PROGRAMS

INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - OHIO - District> County= adults per sweep of red clover and timothy April 9: SE> Hocking= 0.01 in 1 field, intercropped with wheat in 1979, and Hocking and SC> Jackson= none in other fields. (R.W. Wadleigh).

GRASSHOPPERS - NEW MEXICO - District> County= Eritettix sp. and Drepanopterna sp. nymphal hatch: SE> Lea and Chaves= limited, March 30 to April 5. (M. Perry). IDAHO - First of season. District> County= status March 29: SC> Twin Falls= nymphs in desert area of Twin Falls. (R.L. Stoltz).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - District> County= males per pheromone trap per day: C> Maricopa= 0-5 at Harquahala. (L. Blackledge).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Egg masses per 83.6 sq m linear transect during survey March 1980 compared to 1979. Heaviest count 23 in 1980 and 63 in 1979. (J. Banfill).

District> County	Number of egg masses	Hectares	
		1980	1979
SE> Lincoln	21+	518.0	2,072
SE> Lincoln	11-20	5,698.0	4,662.0
SE> Lincoln	6-10	18,130	12,432
SE> Lincoln	3-5	19,684	14,504

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States March 30 to April 5. No cases confirmed in portion of eradication zone in Republic of Mexico. Total of 28 cases reported in Mexico south of eradication zone. Number of sterile flies released this period totaled 13,727,500, all in Texas. Total of 219,263,900 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - CORN DELPHACID (*Peregrinus maidis*) - Island= counts on 2-month-old sweet corn: Kauai= moderate on 0.1 ha at Kaumakani, mainly in terminal leaf whorls, feeding damage caused some desiccation. No egg predators noted. (D.T. Sugawa).

Ornamentals and Shade Trees - A WHITEFLY (*Paraleyrodes naranjae*) - New host records for State. Island= collection data from *Mammea americana* (mammee-apple) and *Codiaeum variegatum* (garden croton), respectively: Oahu= all stages light at Pawaa, collected by K.T. Murai and L.M. Nakahara, and at Kaimuki, collected by W.I. Kobayashi, D.K. Kosaka, and L.M. Nakahara. Collected April 7, 1980. Determined by S.Y. Higa. (L.M. Nakahara).

LARGE COTTONY SCALE (*Pulvinaria mammeae*) - Island= status on *Ficus* sp.: Oahu= infestations and damage moderate on tree grown under glass-covered patio at Iwilei. (K.K. Teramoto, J.S. Patton).

Snail Pest - EUROPEAN BROWN SNAIL (*Helix aspersa*) - Island= status: Hawaii= due to heavy rains in March, 52% more snails recovered, compared to February, from containment area at Waimea, total of 887 snails and/or shells (diameter 5 to 31+ mm) and 14 eggs recovered; and Oahu= none recovered from site at Kapahulu during March despite periodic surveys and use of poisoned bait stations. (R.S. Kami, T.M. Watanabe).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 4/1-6, BL - ARMYWORM (*Pseudaletia unipuncta*) 12, BEET ARMYWORM (*Spodoptera exigua*) 51, BLACK CUTWORM (*Agrotis ipsilon*) 3, CABBAGE LOOPER (*Trichoplusia ni*) 2, TOBACCO BUDWORM (*Heliothis virescens*) 1, VARIEGATED CUTWORM (*Peridroma saucia*) 30. CALIFORNIA - Bellota, 4/7, temp. 5-21°C, BL - Armyworm 17, black cutworm 2, variegated cutworm 3. Manteca, 4/6, temp. 5-19°C, BL - Armyworm 22, black cutworm 1, variegated cutworm 1. KANSAS - Garden City, 4/7, BL - Armyworm 0, black cutworm 0, variegated cutworm 0, WHEAT HEAD ARMYWORM (*Faronta diffusa*) 0. Hays, 4/3-6, BL - Armyworm 0, black cutworm 3, variegated cutworm 0, wheat head armyworm 0. MISSISSIPPI Stoneville, 4/4-10, temp. 62°C, precip. 3.3 mm, 2BL - Armyworm 181, black cutworm 52, GRANULATE CUTWORM (*Feltia subterranea*) 2, SALTMARSH CATERPILLAR (*Estigmene acrea*) 1, variegated cutworm 22, YELLOWSTRIPED ARMYWORM (*Spodoptera ornithogalli*) 1.

DETECTION

NEW STATE RECORDS

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) - ILLINOIS - Washington County. (p. 237).

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - INDIANA - Harrison County; OHIO - Hamilton County. (p. 235)

INSECTS

AN ARGASID TICK (Ornithodoros hermsi) - OKLAHOMA - Le Flore County. (p. 237).

AN IXODID TICK (Ixodes woodi) - OKLAHOMA - Le Flore County. (p. 237).

NEW COUNTY RECORDS

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) - ILLINOIS - See pages 237-238.

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - MISSOURI - Randolph; INDIANA - Orange (p. 235); and MARYLAND - See page 236.

INSECTS

GREENBUG (Schizaphis graminum) - KENTUCKY - Jefferson. (p. 231).

AN IXODID TICK (Ixodes cookei) - OKLAHOMA - Le Flore. (p. 235).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA						
	Life Stage	Host	Probable Origin	Port of Entry	Officer	Destination
<u>Arhopalus</u> sp. a cerambycid beetle Det. D.M. Anderson	larval	in dunnage	Korea	New Orleans	D. Tollett	LA
<u>Camponotus fallax</u> (Nylander) an ant Det. D.R. Smith	adult	on bales of <u>Quercus suber</u> (bark)	Portugal	New York	C. Markham	--
<u>Chilo phragmitellus</u> (Hübner) a pyralid moth Det. D.M. Weisman	larval	in reed mats from cargo	Hungary	Port Everglades	A. Modery	FL
<u>Coccotrypes</u> sp. a scolytid beetle Det. D.M. Anderson	adult	in wood pallets of leather	Brazil	New York	S. Dabulis	Canada
<u>Metopoplax ditomoides</u> (Costa) a lygaeid bug Det. R.C. Froeschner	adult	in <u>Quercus suber</u>	Portugal	New York	T. Sharpe	--
<u>Sinoxylon</u> sp. a bostrichid beetle Det. D.M. Anderson	larval pupal	in wood crates	India	Seattle	C. Payne	NJ
<u>Trypodendron signatum</u> (Fabricius) a scolytid beetle Det. D.M. Anderson	adult	in dunnage	Europe	Charleston	J. Schoenholz	--
<u>Helicella variabilis</u> (Draparnaud) a helcid snail Det. R. Munkittrick	adult	on container of feed	France	Savannah	J. Hargrave	AL

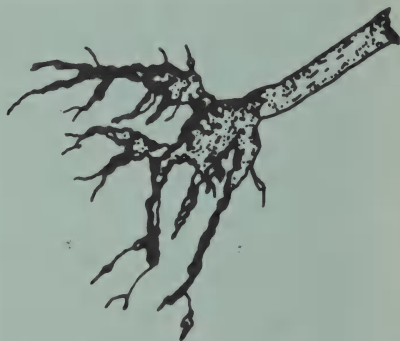
METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre



1023142883

34/033NIDLANESR R1 CPR-0001
~~DR IVAN W KIRK~~ ASST AD
USDA SER SR *LIBRARY*
P O BOX 19687 S REG RES CNTR
NEW ORLEANS LA 70179



25B833

2553

Cooperative PLANT PEST REPORT

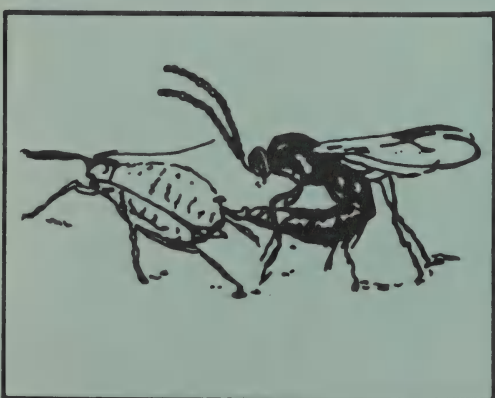
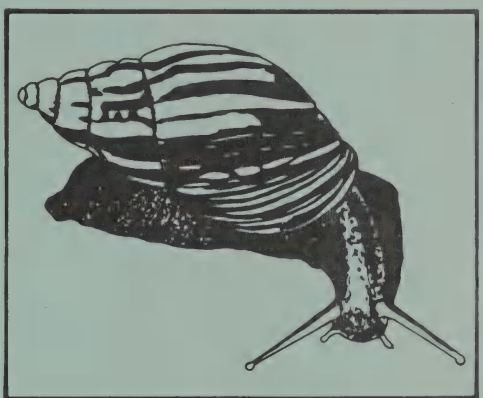
U.S.
DEPARTMENT
OF AGRICULTURE

April 25, 1980

Vol. 5

No. 13

Animal
and Plant
Health
Inspection
Service



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

SOIL-BORNE WHEAT MOSAIC severity mostly moderate on wheat surveyed in Kansas. (p. 246-247).

GREENBUG damage to small grains in parts of western Oklahoma. (p. 247).

ALFALFA WEEVIL problem in southern New Mexico. (p. 249-250).

First record of serious BLUE ALFALFA APHID damage in Kansas. (p. 252).

RANGE CATERPILLAR egg masses economic in area of Oklahoma Panhandle. (p. 255).

Detection

For new county records see page 255.

Some First Occurrences of the Season

BLACK CUTWORM adults in Delaware. FALL ARMYWORM larvae on corn in Florida. LEPTO LEAF SPOT and SPRING BLACK STEM AND LEAF SPOT on alfalfa in Kansas. SOUTHERN CORN ROOTWORM adult on alfalfa in Indiana. ASPARAGUS BEETLE in Oklahoma. EASTERN TENT CATERPILLAR on trees in West Virginia. A TENTHREDINID SAWFLY on pin oak in Oklahoma.

Reports in this issue are for the week ending April 18 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Insects.....	245	General Vegetables Insects.....	252
Small Grains Diseases.....	246	Deciduous Fruits and Nuts Insects.....	252
Insects.....	247	Small Fruits Insects.....	253
Forage Legumes Diseases.....	248	Forest and Shade Trees Insects.....	253
Insects.....	249	Man and Animals Insects.....	254
Cotton Insects.....	252		
Potatoes, Tomatoes, Peppers Insects.....	252		
Beneficial Organisms and Their Enemies Diseases.....	254		
Insects.....	254		
Federal and State Programs Insects.....	255		
Light Trap Collections.....	255		
Detection.....	255		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	256		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH DAKOTA - District> County= winter survival in untilled corn fields: EC> Cass, SE> Dickey, Ransom, Richland, and Sargent= averaged 76%, increased from 48% in 1979. (C.G. Scholl). MINNESOTA - District> County= larval infestations and overwintering survival week of April 7: WC> Lac qui Parle= 13% and 75%, and SC> Watonwan= 17% and 91%; currently: WC> Otter Tail= 49% and 92%, and C> Stearns= 17% and 86%. (D.D. Sreenivasam). WISCONSIN - Dissections of cornstalks in southern area show near normal overwintering survival. District> County= winter survival: SW> Iowa= 88%, SC> Rock= 90%, Dane= 92%, and Columbia= 66%, survival lower where stalks shredded or fall-plowed; additional dissections to be made. (O.L. Lovett).

ILLINOIS - District> County= European corn borer larval overwintering survival: E> Iroquois= 70% in 78 forms taken. (D. Molloy, E. Levine). OHIO - Overwintering larvae still present. District> County= larvae per stalk of field corn stubble April 14-15: WC> Clark= 0.05, 0.05, and 0.25 in 3 fields, SW> Greene= 0.25, Warren= 0.05, Butler= 0.15, and Montgomery= 0.05. (R.W. Wadleigh).

BLACK CUTWORM (Agrotis ipsilon) - KANSAS - Pheromone trap counts April 10-18 (L.C. Bonczkowski et al.):

District> County	Number of males		Number of night(s)	City
	Trap 1	Trap 2		
NE> Leavenworth	1	21	7	Leavenworth
NE> Jefferson	0	0	7	Valley Falls
NE> Pottawatomie	1	6	3	Wamego
NE> Pottawatomie	1	3	1	Wamego
NE> Pottawatomie	6	8	2	Wamego
NE> Pottawatomie	2	0	1	Wamego
EC> Douglas	0	7	7	Baldwin
EC> Shawnee	2	4	4	Rossville
EC> Shawnee	2	2	2	Rossville
EC> Shawnee	2	0	1	Rossville
SE> Allen	1	9	6	Humboldt
SC> Harvey	5	9	6	Newton

ILLINOIS - Area> black cutworm males in pheromone traps: Statewide> increased. (A.M. Agnello). WISCONSIN - District> County= males in pheromone traps March 28 to April 18: SC> Dane= no activity. (O.L. Lovett). DELAWARE - First adults of season. District> County= adults in blacklight traps: C> Kent= in eastern area. (M. Graustein). NEW YORK - District> County= males in pheromone trap: S> Tompkins= 1 collected. (H.R. Willson).

CORN EARWORM (Heliothis zea) - FLORIDA - District> County= adults in pheromone traps per night week ending April 11: C> St. Johns= light, less than 1 near sweet corn fields at Picolata, and Alachua= 2-3 with no eggs or larvae on unsprayed corn. (W.W. Copeland).

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - First larvae of season. District> County= status on sweet corn April 11: C> Alachua= larvae infested 5 plants in 15 plots on 10 ha of commercial unsprayed plantings, adults very light, averaged less than 1 per night, in pheromone traps near fields; and St. Johns= adults light in pheromone traps near Hastings. (W.W. Copeland).

SOUTHERN CORN BILLBUG (Sphenophorus callosus) - NORTH CAROLINA - District> County= status on corn [2-leaf]: Southern Coastal> Sampson= active in 2 fields, about 10% of plants damaged; most severe damage in areas with heaviest infestations of a NUTSEDGE (Cyperus sp.). (D. Berle).

SMALL GRAINS

DISEASES

WHEAT LEAF RUST (Puccinia recondita f.sp. tritici) - KANSAS - District> County= prevalence on wheat [joint growth] week ending April 11: SC> Harvey= trace in 1 field. (T. Sim, IV).

SPECKLED LEAF BLOTCH (Septoria tritici) - KANSAS - Observed on wheat [tillering] week ending April 11. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host height (cm)</u>
SE> Woodson	trace	light	not given
SE> Montgomery	trace	light	not given
SE> Chautauqua	trace	light	not given
SE> Montgomery	trace	light	not given
NE> Doniphan	30-80	light	18
NE> Jackson	trace	light	18
NE> Pottawatomie	trace	light	15
NE> Marshall	20-40	light	13
NE> Nemaha	10	light	10

TAN SPOT (Pyrenophora trichostoma) - KANSAS - Observed on wheat week ending April 11. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host stage</u>	<u>Host height (cm)</u>
SE> Montgomery	trace	light	tillering	not given
NE> Doniphan	trace to 100	light	tillering	18
NE> Pottawatomie	trace	light	tillering	15
NE> Marshall	20-40	light	tillering	13
NE> Nemaha	10	light	tillering	10
SC> Sedgwick	100	severe	joint	not given
SC> Harvey	50	light	joint	not given

SOIL-BORNE WHEAT MOSAIC VIRUS - KANSAS - Observed on wheat March 28 to April 11. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host stage</u>	<u>Host height (cm)</u>
NE> Riley	trace to 40	moderate	tillering	10-15
NE> Pottawatomie	trace to 30	moderate	tillering	8
NE> Jefferson	5-30	moderate	tillering	8
NE> Doniphan	trace	light	tillering	18
EC> Geary	trace	moderate to severe	tillering	not given

District> County	Prevalence (%)	Severity (%)	Host stage	Host height (cm)
EC> Shawnee	trace to 75	moderate	tillering	10-15
EC> Wabaunsee	trace to 10	moderate	tillering	10-15
EC> Morris	trace to 10	moderate	tillering	8
EC> Butler	3	severe	tillering	not given
SE> Chautauqua	trace to 50	light	tillering	not given
SE> Montgomery	trace to 100	moderate	tillering	not given
SE> Labette	trace to 85	moderate	tillering	not given
SE> Cherokee	trace to 100	moderate	tillering	not given
SE> Wilson	100	light	tillering	not given
NC> Clay	trace to 30	moderate	tillering	8
C> Dickinson	trace to 30	moderate to severe	tillering	8
C> Marion	2-10	moderate to severe	tillering	not given
C> McPherson	15	moderate	tillering	not given
C> Saline	2	moderate	tillering	not given
SC> Sedgwick	20-100	severe	tillering	not given
SC> Harvey	15	severe	tillering	not given
SC> Barber	45-100	severe	tillering	not given
SC> Harper	1-60	moderate	tiller to joint	not given

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= infestation on wheat: Panhandle> Ellis= moderate. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - District> County= counts per 0.3 row m of small grains [host height if given]: Panhandle> Texas= averaged 4,000 [25 cm] in dying spots in few scattered wheat fields, light in most fields; WC> Washita= still heavy [30-36 cm] in some wheat fields, at least 1 field dying in spots; Roger Mills= 20-200; SW> Caddo= 50-2,000; Jackson and Kiowa= 10-300 in 10 fields, damage in some fields; and SC> Bryan= moderate on wheat. (D.C. Arnold). KANSAS - District> County= counts on wheat [host stage] in number of fields (f): SC> Comanche and Barber= none to trace [leaf sheaths strongly erected to second node visible] in 6f (G.A. Salisbury); EC> Anderson, SE> Allen, Labette, and Cherokee= none to trace [tillers formed to first node of stem visible] in 9f; and NE> Riley, NC> Clay, Republic, Jewell, Mitchell, C> Saline, and Dickerson= none [leaf sheaths lengthen to first node of stem visible] in 6f. (B.D. Hilbert).

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - FLORIDA - District> County= nymphs and adults per 100 sweeps of oats [green seed heads] April 10: C> Alachua= about 250 at Gainesville. (F.W. Mead).

AN APHID (*Rhopalosiphum padi*) - OKLAHOMA - District> County= counts per 0.3 row m of wheat: SW> Jackson and Kiowa= 0-20. (D.C. Arnold).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OHIO - District> County= adults per sweep of winter wheat [tillering begins]: SW> Greene= 0.02, and Warren, Butler, and C> Madison= none probably due to cold, rainy weather. (R.W. Wadleigh).

A THRIPS (*Frankliniella bispinosa*) - FLORIDA - District> County= counts per 100 sweeps of oats April 10: C> Alachua= thousands, very common. (F.W. Mead).

BROWN WHEAT MITE (*Petrobia latens*) - NEVADA - District> County= winter wheat damage: W> Pershing= moderate on 32 ha at Lovelock. (G. Munk). OKLAHOMA - District> County= counts on wheat in number of fields (f): SW> Jackson= 50-100 per 0.3 row m in spots in 1f, noticeable damage, and Jackson and Kiowa= light in 9f. (D.C. Arnold).

FORAGE LEGUMES

DISEASES

LEPTO LEAF SPOT (*Leptosphaerulina briosiana*) - OKLAHOMA - Area> prevalence on alfalfa: C> symptoms evident in surveys. (K.E. Conway). KANSAS - First of season on alfalfa March 28 to April 11. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Defoliation (%)</u>	<u>Host height (cm)</u>
SE> Wilson	90	none	10
SE> Montgomery	100	none	10-13
SE> Labette	100	none	8
SE> Sedgwick	not seen	1-25	15
SC> Kingman	not seen	none	15
SC> Pratt	not seen	none	15
SC> Kiowa	not seen	none	15
SC> Edwards	not seen	none	15
SC> Pawnee	not seen	none	15
SC> Stafford	not seen	none	15
SC> Reno	not seen	none	15
EC> Douglas	70-100	1-25	13
EC> Franklin	75-80	1-25	5
EC> Wabaunsee	trace	none	5-8
NE> Atchison	trace	none	3
NE> Doniphan	trace	none	5
NE> Jefferson	trace	none	10
NE> Pottawatomie	40-80	none	5
NE> Marshall	trace	none	5
NE> Nemaha	80	none	5

SPRING BLACK STEM AND LEAF SPOT (*Phoma medicaginis*) - OKLAHOMA - Area> prevalence on alfalfa: C> symptoms evident in surveys. (K.E. Conway).

KANSAS - First spring black stem and leaf spot of season on alfalfa March 28 to April 11. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Defoliation (%)</u>	<u>Host height (cm)</u>
SE> Wilson	not seen	none	10
SE> Montgomery	100	none	10-13
SE> Labette	not seen	none	8
SC> Sedgwick	100	1-25	15
SC> Kingman	100	none	15
SC> Pratt	100	none	15
SC> Kiowa	100	none	15
SC> Edwards	100	none	15
SC> Pawnee	100	none	15

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Defoliation (%)</u>	<u>Host height (cm)</u>
SC> Stafford	100	none	15
SC> Reno	100	none	15
EC> Douglas	80-100	1-25	15
EC> Franklin	100	1-25	13
EC> Wabaunsee	trace to 90	none	5
NE> Atchison	trace to 100	none	5-8
NE> Doniphan	10	none	3
NE> Jefferson	not seen	none	5
NE> Pottawatomie	60	none	10
NE> Marshall	trace	none	5
NE> Nemaha	not seen	none	5

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - OKLAHOMA - Area> prevalence on alfalfa: C> symptoms evident in survey. (K.E. Conway).

ALFALFA MOSAIC VIRUS - KANSAS - District> County= prevalence on alfalfa [8 cm tall] week ending April 11: NE> Atchison= trace in 1 field. (T. Sim, IV).

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEW MEXICO - District> County= larvae on alfalfa: SE> Dona Ana= very heavy in untreated alfalfa north of Las Cruces, two-thirds of foliage severely damaged, and SW> Hidalgo= averaged 4-8 per sweep in 3 fields in Animas and Cotton City areas, half of foliage damaged and growth retarded. (G. Nielsen).

OKLAHOMA - District> County= degree day accumulations (base 8.9°C) through April 15: C> Payne= 228 and Grady= 294. Alfalfa weevil on alfalfa: C> Payne= eggs averaged 26 per 0.09 sq m April 14, and Grady= eggs averaged 17 per 0.09 sq m April 16; Grady and SC> Stephens= cocoons 3-5 per 0.09 sq m; C> McClain, Grady, SC> Garvin, Murray, Carter, Jefferson, Stephens, SW> Cotton, Tillman, Jackson, Greer, Kiowa, Caddo, and WC> Washita= larvae infested 80-100% of terminals in most untreated fields; SW> Jackson, Tillman, and Harmon= counts 4-55% in 24 treated fields, some to be treated for third time with an organic phosphate; Panhandle> Texas= infestation averaged 1% and 20% in 2 untreated fields; C> Payne= larvae averaged 800 per 10 sweeps in 1 untreated field; and NC> Kay= larvae light. (D.C. Arnold).

KANSAS - District> County= alfalfa weevil on alfalfa [host height if given] in number of fields (f) if given: SE area> still light [13-23 cm]; SE> Montgomery= mostly 2nd and 3rd instar larvae averaged 2.5 per stem with 70% terminals showing feeding damage, economic in isolated case; Butler, SC> Reno, Comanche, Barber, Sedgwick, Edwards, and Kiowa= mostly 1st and 2nd instar larvae (taken by Berlese funnel) averaged trace to 0.3 per stem [10-20 cm] in 1f each (G.A. Salsbury); SW> Finney= 1st instar larvae (taken by Berlese funnel) trace [5 cm] in 1f; Haskell= no larvae [3-6 cm] in 3f (M.L. Shuman); NE> Riley= 2nd to 4th instar larvae trace in 1f and adults averaged 2.7 (some mating) per 100 sweeps [12 cm] in 1f; and EC> Chase= 1 per 100 sweeps [12 cm] in 1f (K.O. Bell, Jr.).

MISSOURI - Area> alfalfa weevil on forage legumes: Southern one-half> hatch reported, terminal damage very light to 10% of plants. (R.E. Munson).

TENNESSEE - Alfalfa weevil infestation levels less than 3% in some of same fields last period. Tip infestation 40+% at same time in 1979. Survey, 1 field each, April 7-10 (M. Cooper et al.):

<u>District> County</u>	<u>Larvae per sweep</u>	<u>Infested tips (%)</u>
Central Basin> Maury	6.8	50
Central Basin> Marshall	4.1	50
Central Basin> Williamson	0.1	2
Western Rim> Robertson	2.1	70
West Tennessee> McNairy	-	26
West Tennessee> Hardeman	-	26
West Tennessee> Fayette	-	26

KENTUCKY - Area> alfalfa weevil larvae on alfalfa: Statewide> increased very rapidly, majority still 1st and 2nd instars and confined to young and tender growing tips, few 3rd instars found; damage becoming noticeable in some areas, near economic levels in few fields in eastern area. Midwestern district> Christian County= at least 1 field recommended for treatment. Results of visual observation on 30 stems April 8-9 (P.E. Sloderbeck):

<u>District> County</u>	<u>Larval average</u>	<u>Host height (cm)</u>
C> Barren	2.4	19
C> Barren	4.8	16
C> Marion	6.3	11

ILLINOIS - District> County= alfalfa weevil larvae per 30 stems of alfalfa in number of fields (f) and percent terminals with damage: SW> Johnson= up to 43 in 1f and 15% [28-33 cm tall] in 1f (70% of plants showed pinholes): Washington= 30 in 1f and pinholing damage 50% in 7f; Randolph and Perry= no data and 15% in 4f; Randolph= 12 in 2f and no data; Clinton, St. Clair, and Perry= 8-10 in 5f and no data. Adults active in most southern fields. (A.M. Agnello).

INDIANA - District> County= alfalfa weevil on alfalfa [host height] April 7-8: SC> Jackson, Washington, and Harrison= mainly 1st instar larvae 0-2.7 (averaged 1.4) per infested stem [3.5-8.6 (averaged 5.8) cm] on 0-55% (averaged 25%) of 10 fields (compared with 10% in past period), adults averaged 3 per 100 sweeps; and C> Bartholomew= infestation 5% [averaged 4 cm] in 1 field. Area> current larvae and eggs on alfalfa [averaged 8.6 cm tall]: SC district> still primarily 1st instar (81%), feeding more easily seen than in last period, larvae averaged 2.2 per stem on 38.7% (ranged 12-68%) of stems in 12 fields; eggs 13-70 (averaged about 40) per 15 sq cm in 5 fields. Eggs extracted by blender and, judging by percent hatch last period, majority viable. (R.W. Meyer).

SOUTH CAROLINA - District> County= alfalfa weevil larvae on alfalfa April 10: NW> Greenville= in about 30-70% of terminals in 7 fields, controls recommended. (H.G. Oates, R.P. Griffin). WEST VIRGINIA - District> County= egg averages per 0.09 sq m of alfalfa: SW> Jackson= 10.4, NW> Wood= 4.8, Ohio= 76, and Marshall= 104 March 11-12; E> Jefferson= 192.8 and Berkeley= 145.6 March 26 (J.D. Hacker); larvae per 30 stems [host height] and percent tip infestation: E> Jefferson= not given [11 cm] and averaged 70% April 9 (J.E. Weaver), and 17 [22.5 cm] and 76-100% April 16 (J.D. Hacker); NW> Monongalia= not given [5 cm] and averaged 20% April 11 (J.E. Weaver); E> Berkeley= 2 [52 cm] and 20% April 16 (J.D. Hacker).

CLOVER LEAF WEEVIL (Hypera punctata) - KANSAS - District> County= counts per crown of alfalfa [host height] in 1 field each (unless stated otherwise): NE> Riley= 4.1 [8-13 cm], EC> Morris= 0.2 [8-13 cm], Chase= 3.6 [8-13 cm], and SC> Harvey= 0.6 [8-13 cm] (K.O. Bell, Jr.); NC> Clay= 1.0 [5-13 cm], Republic= 0.5 [5-13 cm], Jewell= trace [5-13 cm], Mitchell= trace [5-13 cm], C> Saline= 0.7-1.0 [5-13 cm] in 2 fields, and Dickinson= 1.4-1.7 [5-13 cm] in 2 fields (B.D. Hilbert); SC> Reno, Comanche (2 fields), Barber, Sedgwick, and SE> Butler= 0 [15-20 cm] (G.A. Salisbury); and SW> Finney= 0.3 [3-6 cm], and Haskell= 0-1.1 [3-6 cm] in 3 fields (M.L. Shuman).

MISSOURI - District> County= clover leaf weevil larvae per 0.09 sq m of forage legumes: SC> Howell= 2nd and 3rd instars 0-5, light. (R.E. Munson). ILLINOIS - District> County= counts: SW> Johnson= larvae 8 per 0.09 sq m in clover field, and Randolph= adults trace in alfalfa field. (A.M. Agnello). OHIO - District> County= status per 0.09 sq m: SW> Butler= 2nd and 3rd instars trace (0.33-1.3) in mixed alfalfa and red clover field and in mixed alfalfa and orchardgrass field, and Preble= 2nd and 3rd instars trace (0.33-1.3) in mixed alfalfa, red clover, and timothy field; damaged 1-2 leaves per stem on 50% of stems in all 3 fields. No activity or damage on timothy and orchardgrass. (R.W. Wadleigh).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - ILLINOIS - District> County= adult on clover: SW> St. Clair= 1 in 1 field. (A.M. Agnello). INDIANA - First adult of season. District> County= adult on alfalfa: SC> Harrison= observed on April 8. (R.W. Meyer).

ARMY CUTWORM (Euxoa auxiliaris) - NEBRASKA - District> County= larvae on fall-seeded alfalfa: C> Dawson, SW> Red Willow, and Dundy= 1st to 3rd instars in 3 fields. Up to 30% stand loss in areas of last county. Stand loss averaged less than 10% in all 3 fields. (Roselle, Campbell).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - District> County= counts of mostly this species and PEA APHID (Acyrtosiphon pisum) on alfalfa: W> Washoe= averaged 30 per sweep on varietal test plot. (J. Berg). ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Maricopa= 6-40 and SW> Yuma= 2,500. (E. Hall et al.).

KANSAS - First record of serious blue alfalfa aphid damage to alfalfa in State. District> County= counts per alfalfa stem [host height] in number of fields (f) if given: SE> Montgomery= averaged 151 per stem [8 cm] along with 1 PEA APHID (Acyrtosiphon pisum) in seriously damaged spots compared with 10 per stem [15 cm] along with 16 pea aphids per stem in spots not seriously damaged, blue alfalfa aphid caused severe stunting, wilting, and dying in spots near Cherryvale and averaged 2.3 in 2f, winged aphid seen; Elk= none to trace in 2f; EC> Anderson and SE> Allen= none to trace in 2f (S.C. White); Butler= trace [13 cm] in 1f; SC> Barber and Comanche= none [10-17 cm] in 2f (G.A. Salisbury); and Harvey, NE> Riley, EC> Morris, and Chase= none [8 cm] in 6f (K.O. Bell, Jr.).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Maricopa= 500. (E. Hall et al.).

OKLAHOMA - District> County= pea aphid and BLUE ALFALFA APHID (Acyrtosiphon kondoi) on alfalfa: C> McClain, Grady, SC> Garvin, Murray, Carter, Jefferson, Stephens, SW> Cotton, Tillman, Jackson, Greer, Kiowa, Caddo, and WC> Washita= mostly pea aphid moderate to heavy on untreated alfalfa, up to 5,000 per 10 sweeps in some fields; SW> Jackson, Tillman, and Harmon= mostly pea aphid 3-25 (averaged 8) per stem in 24 treated fields; SC> Garvin= blue alfalfa aphid heavy in 1 field with severe stunting. Panhandle> Texas= 3,000-4,000 per 10

sweeps in 2 fields; C> Payne= mostly pea aphid (86%) averaged 2,500 per 10 sweeps in 1 field; NE> Washington= pea aphid light; and SE> Choctaw= pea aphid heavy, 100-200 per stem, destroyed arrowleaf clover plants in several fields. (D.C. Arnold).

KANSAS - District> County= pea aphid per stem of alfalfa: SE> Elk= mostly less than 1 in most areas (G.E. Lippert), and Elk and Montgomery= heaviest counts averaged 0.6-16 in 4 fields (S.C. White). MISSOURI - District> County= counts per 10 sweeps of alfalfa [8-13 cm tall]: SW> Stone= 7-30, light to moderate. (R.E. Munson). ILLINOIS - Pea aphid present throughout southern one-third of State. District> County= counts per 10 sweeps of forage legumes based on 50 sweep samples in 1 field each: SE> Massac and SW> Washington= 40-50. (A.M. Agnello). OHIO - District> County= counts per 0.09 sq m of alfalfa and red clover: SW> Butler and Preble= trace in samples. (R.W. Wadleigh).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 300. (E. Hall et al.). OKLAHOMA - District> County= counts on alfalfa: SW> Tillman= averaged 2,000 per 10 sweeps in research plots in Tipton area; Jackson, Tillman, and Harmon= 5-40 (averaged 10) per stem in 24 fields, few fields treated; and SC> Jefferson= 500 per 10 sweeps in 1 field. (D.C. Arnold).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - SOUTH CAROLINA - District> County= pheromone trap catches from 1979 cotton fields April 11: S> Barnwell= averaged 2.5 per trap per day near Blackville (J.W. Chapin), averaged 2-3 per trap in 5 traps; C> Calhoun= about 60 in 1 trap; and E> Marlboro= 1 in 4 traps (D.R. Johnson).

POTATOES, TOMATOES, PEPPERS

INSECTS

SEEDCORN MAGGOT (*Hylemya platura*) - MISSISSIPPI - District> County= larvae on potatoes: SC> Covington= larvae damaged seed potatoes and other home garden seed and seedlings. (R. Anderson).

GENERAL VEGETABLES

INSECTS

ASPARAGUS BEETLE (*Crioceris asparagi*) - OKLAHOMA - First of season. District> County= status on asparagus: NE> Tulsa= adults averaged 1 per 30.5 row m in 1 planting at Bixby, April 17, 1 spear with eggs. (D.C. Arnold).

DECIDUOUS FRUITS AND NUTS

INSECTS

SPRING CANKERWORM (*Paleacrita vernata*) - KANSAS - District> County= status: NE> Riley= hatching on crabapple at Manhattan, SE> Butler= none at 1 location at El Dorado (K.O. Bell, Jr.) and SC> Barber= hatching on wild plum (G.A. Salsbury).

A NOCTUID MOTH (Orthosia hibisci) - NEW YORK - District> County= adult status: W> Wayne= active April 9. (Richardson).

APPLE GRAIN APHID (Rhopalosiphum fitchii) - OHIO - District> County= nymphs per apple bud [6.4 mm green tip] April 14-15: SW> Warren= 1-3 on Red Delicious, Golden Delicious, and Lodi varieties, and Preble= 0.1 on McIntosh, Red Delicious, and Golden Delicious. (R.W. Wadleigh).

PEAR PSYLLA (Psylla pyricola) - WASHINGTON - District> County= nymphs on pear: C> Yakima= reported from Yakima and Zillah. (A. Gregorich, R. Britt). UTAH - District> County= status on pears April 11: C> Utah= eggs and adults heavy in orchards at Orem, no nymphs hatched. (D.W. Davis). NEW YORK - District> County= egg laying: SE> Ulster= observed April 5 (Weires) and W> Wayne= observed April 7 (Babcock, Way).

GRAPE MEALYBUG (Pseudococcus maritimus) - WASHINGTON - District> County= nymphs on pear April 4: C> Yakima= on trees at Buena. (R. Britt).

WINTER MOTH (Operophtera brumata) - OREGON - County= larvae on filberts week ending April 4: Washington= continued to increase in unsprayed orchard, hatch not complete; 396 taken from 158 leaf clusters at Tigard, April 4, averaged 2.5+ per leaf cluster compared with 1.7 on March 28, 1st instars 93% and 2nd instars 7% (R.L. Penrose); Washington= decreased slightly in abandoned orchard near Wilsonville compared to April 7, larvae averaged 1.4 per leaf cluster April 11; 1st instars 63% and 2nd instars 37%, few 3rd instars. (R.L. Penrose, J. LaBonte).

SMALL FRUITS

INSECTS

TWOSPOTTED SPIDER MITE (Tetranychus urticae) - OHIO - District> County= eggs and overwintered females per strawberry leaf April 14: SW> Warren= 0.5 and 0.15. (R.W. Wadleigh).

FOREST AND SHADE TREES

INSECTS

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - OKLAHOMA - District> County= adults on young pines April 16: C> Payne= emergence of overwintering generation from tips seemed nearly complete in Lake Carl Blackwell area. (D.C. Arnold).

SPRING CANKERWORM (Paleacrita vernata) - OKLAHOMA - District> County= larvae per branch terminal of various shade trees: SE> Choctaw= 8-10. (D.C. Arnold).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - WEST VIRGINIA - First emergence of season. District> County= larvae March 29: SW> Kanawha= first hatch, no tents formed. (A.R. Miller).

A TENTHREDINID SAWFLY (Periclista sulfurana) - OKLAHOMA - First of season. District> County= adults on pin oak April 12: C> Payne= active in Stillwater area. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - OKLAHOMA - District> County= counts per head of cattle: SE> Latimer= 50-100 and C> Payne= averaged 50. (D.C. Arnold). MISSISSIPPI - Area> adults on cattle: Many areas of State> increased. (R. Anderson). FLORIDA - District> County= average per head of beef in small herd April 10: C> Alachua= 146 at Micanopy, population more than doubled since April 4. (D. Simon).

A TABANID FLY (Hybomitra nigricans) - OKLAHOMA - District> County= counts per head of cattle: SE> Latimer= 5-10 in 2 herds. (D.C. Arnold).

MOSQUITOES - NEW HAMPSHIRE - County= status April 7-13: Strafford and Rockingham= Anopheles punctipennis adults biting on warm spring evenings, and Strafford= biting rates averaged 1 per minute at Durham at 15°C. Larvae of spring Aedes spp. continued to hatch in southern area. Early hatching species Aedes aberratus, Aedes punctor, Aedes stimulans, and Aedes communis in 2nd and 3rd instars. Later hatching species Aedes canadensis, Aedes fitchii, and Aedes decticus still in 1st instar. Heavy rains greatly enlarged breeding areas, supplementing water from meager snow melt resulted in large hatches of mosquitoes not previously flooded. (J.F. Burger).

A SMOOTH SUCKING LOUSE (Linognathus ovillus) - COLORADO - District> County= status on sheep: San Luis Valley> Saguache= moderate and spreading. (L.N. Stevens).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (Entomophthora sp.) - KENTUCKY - Observed on Hypera punctata (clover leaf weevil) larvae at several sites. District> County= status on Hypera punctata: C> Barren= first noted on larvae on alfalfa March 31, epizootic conditions by April 8 in same field associated with low areas and volunteer clover. (P.E. Sloderbeck, G.L. Nordin).

INSECTS

AN APHIDIID WASP (Lysiphlebus testaceipes) - OKLAHOMA - District> County= status in Schizaphis graminum (greenbug) infested wheat: SW> Jackson and Kiowa= building up, parasitism 5-15%; and WC> Washita= parasitism still light. (D.C. Arnold).

AN APHIDIID WASP (Aphidius sp.) - OKLAHOMA - District> County= status in aphid infested alfalfa: Panhandle> Texas= adults common, parasitism averaged less than 1%, and C> Kingfisher= parasitism of Acyrtosiphon pisum (pea aphid) and/or Acyrtosiphon kondoi (blue alfalfa aphid) heavy in 1 field. (D.C. Arnold).

A BRACONID WASP (Microctonus colesi) - OHIO - District> County= parasitism by overwintering generation in 100 Hypera postica (alfalfa weevil) adults: NE> Wayne= 12%. (J. Flesse).

A LADY BEETLE (Coccinella septempunctata septempunctata) - OKLAHOMA - District> County= adult status: C> Payne= several near 1 of original release sites at Stillwater. (D.C. Arnold).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASSHOPPERS - NEVADA - District> County= 1st and 2nd instar Melanoplus sanguinipes nymphs per 0.8 sq m of hay alfalfa: S> Nye= ranged from 2 in scattered areas to 6 on margins near Lathrop Wells. (W. Hoff, T. Smigel). OKLAHOMA - District> County= status of hatch: Panhandle> Cimarron, Texas, and Beaver= began April 10, and Harper= in margins around alfalfa fields. (D.C. Arnold). NORTH DAKOTA - District> County= egg development in survey April 16-17: SC> Burleigh and Morton= 5% clear, 18% coagulated, 47% eyespot, and 30% segmented. (Brandvik).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - District> County= pheromone trap counts per trap per day: SW> Yuma= 0-15. (K. Toth et al.).

RANGE CATERPILLAR (Hemileuca oliviae) - OKLAHOMA - District> County= egg status on rangeland: Panhandle> Cimarron= heaviest south of State Highway 325 about 24 km west of Boise City, egg masses 10-12 per 91.4 m transect (2 per 91.4 m economic). Area about 24 km northeast of area of heaviest infestation in 1979. (D.C. Arnold).

SCREWWORM (Cochliomyia hominivorax) - No cases reported from continental United States April 6-12. No cases confirmed in portion of eradication zone in Republic of Mexico. Total of 113 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 7,741,016, all in Texas. Total of 131,011,684 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

LIGHT TRAP COLLECTIONS

ARIZONA - Mesa, 4/7-13, BL - ARMYWORM (Pseudaletia unipuncta) 13, BEET ARMYWORM (Spodoptera exigua) 152, BLACK CUTWORM (Agrotis ipsilon) 25, CABBAGE LOOPER (Trichoplusia ni) 3, CORN EARWORM (Heliothis zea) 1, VARIEGATED CUTWORM (Peridroma saucia) 61. CALIFORNIA - Bellota, 4/13, temp. 10-28°C, BL - Armyworm 12, SALTMARSH CATERPILLAR (Estigmene acrea) 1, variegated cutworm 3. Manteca, 4/14, temp. 9.4-22°C, BL - Armyworm 29, beet armyworm 1, black cutworm 2, variegated cutworm 1. INDIANA - Tippecanoe, 4/16, BL - Black cutworm 1, corn earworm 0, EUROPEAN CORN BORER (Ostrinia nubilalis) 0, FALL ARMYWORM (Spodoptera frugiperda) 0, variegated cutworm 0. KANSAS - Garden City, 4/10, 16, BL - Armyworm 0, black cutworm 1, variegated cutworm 0, WHEAT HEAD ARMYWORM (Faronta diffusa) 0. Rossville, 4/18, BL - Armyworm 21, black cutworm 3, variegated cutworm 8, wheat head armyworm 0. MISSISSIPPI - Stoneville, 4/11-17, temp. 2.8-25°C, precip. 137 mm, 2BL - Armyworm 133, black cutworm 35, TOBACCO BUDWORM (Heliothis virescens) 1, variegated cutworm 5, YELLOWSTRIPED ARMYWORM (Spodoptera ornithogalli) 1.

DETECTION

NEW COUNTY RECORD

INSECTS

A PENTATOMID BUG (Vulsirea violacea) - FLORIDA - District> County= collection data from unknown native wild plant: S> St. Lucie= nymphs and adults at White City, April 2, 1980, by E.W. Campbell, determined by F.W. Mead. (E.W. Campbell).

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Cercospora</u> sp. a fungus Det. F. Matthews	imperfect on leaves of Homalomena plants from cargo	Singapore	Honolulu	R. Kunishi	TX
<u>Aleurolobus marlatti</u> (Quaintance) a whitefly Det. S. Nakahara	adult on leaves of Murraya from baggage	India	Chicago	R. Park	TN
<u>Anaglyptus subfasciatus</u> Pic a cerambycid beetle Det. T.J. Spilman	adult in wood crates of electrical equipment	Japan	San Francisco	F. Thomas	CA
<u>Anastrepha</u> sp. a tephritid fly Det. R. Lyle	Larval in mangoes from baggage	Brazil	Miami	R. Lyle	FL
<u>Aspidiella hartii</u> (Cockerell) a diaspidid scale Det. G.T. Muraoka	adult on roots of Zingiber from baggage	Jamaica	Miami	G. Muraoka	FL
<u>Neotermes</u> sp. a termite Det. D.A. Nickle	adult in wood crates of leather	Argentina	New York	J. Glynn	MO
<u>Tomiscus piniperda</u> Linnaeus a scolytid beetle Det. D.M. Anderson	adult in wood crates	Korea	Seattle	C. Payne	WA
<u>Xyleborus eurygraphus</u> (Ratzeburg) a scolytid beetle Det. D.M. Anderson	adult in dunnage	Italy	Mobile	E. Legare	--

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY

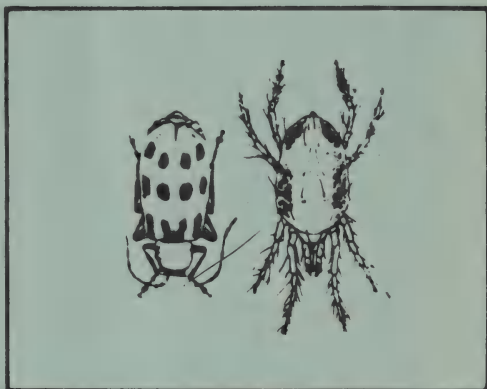


1023142884

347033NIDMDHYNN
C H HOFFMANN
6906 40TH AVE
HYATTSVILLE

R1 CPR-0001

MD 20782



Q5B
823
2L53

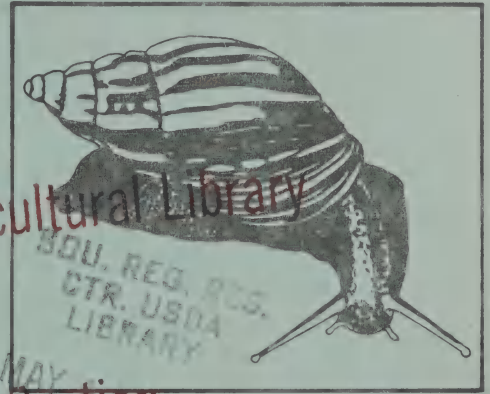
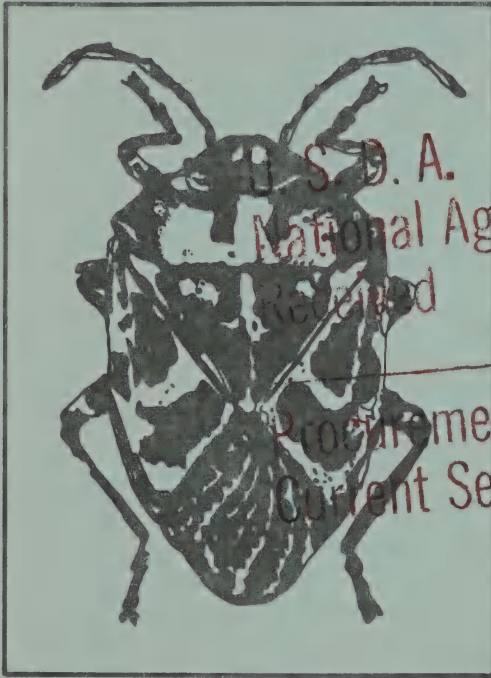
Cooperative PLANT PEST REPORT

5/21
U.S.
DEPARTMENT
OF AGRICULTURE

May 2, 1980

Vol. 5
No. 14

Animal
and Plant
Health
Inspection
Service



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

TAN SPOT more severe in continuous wheat areas in Kansas. (p. 260).

SOIL-BORNE WHEAT MOSAIC continued obvious on wheat in Kansas. (p. 260).

ALFALFA WEEVIL treated or should be in parts of Tennessee, will exceed economic threshold in midwestern Kentucky, activity rapidly increased in Illinois, and expected to increase rapidly next 14 days in Maryland. (p. 263-264).

Predictions

VIRGINIA PINE SAWFLY and LOBLOLLY PINE SAWFLY should be little problem in Kentucky. (p. 267).

Detection

New State records include CAMPHOR SCALE in Virginia and PINWOOD NEMATODE in California. (p. 267).

For new county records see page 270.

Some First Occurrences of the Season

ASPARAGUS BEETLE eggs in South Carolina. SPOTTED ASPARAGUS BEETLE adults in Idaho. EUROPEAN RED MITE hatch in Virginia. AMERICAN DOG TICK in Wisconsin. GRASSHOPPER nymphs in Oregon.

Reports in this issue are for the week ending April 25 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		Deciduous Fruits and Nuts	
Insects.....	259	Diseases.....	266
		Insects.....	266
Small Grains		Small Fruits	
Diseases.....	259	Insects.....	267
Insects.....	261		
Turf, Pastures, Rangeland		Ornamentals	
Insects.....	261	Insects.....	267
Forage Legumes		Forest and Shade Trees	
Diseases.....	261	Diseases.....	267
Insects.....	263	Insects.....	267
Cotton		Man and Animals	
Insects.....	265	Insects.....	268
General Vegetables		Miscellaneous Wild Plants	
Insects.....	265	Insects.....	268
Beneficial Organisms and Their Enemies			
Diseases.....	268		
Insects.....	269		
Federal and State Programs			
Insects.....	269		
Hawaii Pest Report.....	269		
Detection.....	270		
Light Trap Collections.....	271		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	272		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - MINNESOTA - District> County= Larval infestations and overwintering survival: SW> Nobles= 11% and 89%, and Jackson= 14% and 92%. (D.D. Sreenivasam). ILLINOIS - District> County= overwintering larval survival in 25 forms: NW> Winnebago= 56% and Ogle= 80%. (J. Paullus). OHIO - Overwintering larvae still in field corn stubble. District> County= larvae per cornstalk: C> Union= 0.25, WC> Hardin= 0.05, NW> Allen= 0.25, Putnam= 0.30, Henry= 0.05, Wood= 0.30, and NC> Sandusky= 0.10. (R.W. Wadleigh).

CORN EARWORM (*Heliothis zea*) - SOUTH CAROLINA - District> County= larvae on corn April 16: S> Bamberg= moderate, averaged 1-3, per plant in 8 ha of no-till corn in rye near Denmark. (F.O. McAlnany).

BLACK CUTWORM (*Agrotis ipsilon*) - MISSOURI - District> County= males in number of traps April 17: NE> Monroe= 48 in 2 and Ralls= 49 in 3. (R.E. Munson). WISCONSIN - District> County= males in pheromone traps: SC> Dane= none, if present in area, windy conditions during evening may be reducing flights. (O. L. Lovett). OHIO - District> County= males in pheromone traps April 6-22 and degree-day (DD) accumulations (base 11°C), January 1 to April 22: NE> Wayne= 21 and 80 DD, NC> Ashland= 13 and no data, and C> Knox= 6 and no data. (S. Clement et al.).

SOUTHERN CORN BILLBUG (*Sphenophorus callosus*) - NORTH CAROLINA - Damage by this species and MAIZE BILLBUG (*Sphenophorus maidis*) intensified along western edge of their range since 1977 but infestations appeared spotty. District> County= status of both species on corn: Central Coastal> Johnston, Wayne, and Wilson= subeconomic but damage detectable in 3 of 7 fields (averaged 3 ha each). (T. Hunt).

SMALL GRAINS

DISEASES

SPECKLED LEAF BLOTCH (*Septoria tritici*) - KANSAS - Severity light on wheat [tillering] week ending April 18. (T. Sim, IV).

District> County	Prevalence (%)	Host height (cm)
NE> Riley	trace to 5	18-23
NC> Clay	10	23
NC> Republic	trace	20
NC> Jewell	trace	18
C> Saline	trace	15
SE> Labette	trace to 100	23-33
SE> Cherokee	100	25

WHEAT POWDERY MILDEW (*Erysiphe graminis* f.sp. *tritici*) - VIRGINIA - District> County= status on wheat April 15-17: E> Richmond and Accomack= in nurseries and fields. (C.W. Roane).

TAN SPOT (*Pyrenophora trichostoma*) - KANSAS - More severe in continuous wheat areas. Status week ending April 18 (T. Sim, IV):

District> County	Prevalence (%)	Severity (%)	Host stage	Host height (cm)
NE> Riley	trace	light	tillering	18-23
C> Dickinson	20-100	light to severe	tillering	20
C> Saline	trace to 100	moderate	tillering	20-25
C> McPherson	10-100	moderate	tillering	10-25
C> Marion	10-60	light	tillering	15
SC> Harvey	100	moderate	tillering	15-25
SC> Comanche	trace	light	tillering to joint	not given
SC> Barber	75	light	joint	not given
EC> Anderson	trace	light	tillering	20
SE> Allen	trace	light	tillering	20
SE> Labette	5	light	tillering	28

RHYNCHOSPORIUM SCALD (*Rhynchosporium secalis*) - VIRGINIA - District> County= status on barley April 15-17: E> Richmond= active in nurseries. (C.W. Roane).

SOIL-BORNE WHEAT MOSAIC VIRUS - KANSAS - New county records. District> County= collection data from *Triticum aestivum* (wheat), 1 field each: SW> Hodgeman= at Kalvesta, April 11, 1980, and Stevens= at Moscow, April 17; both collected and determined by V.H. Lengkeek. Severe on infected wheat in some parts of eastern two-thirds area, appeared in parts of southwestern area. Cool weather April 4-18 ideal for symptom expression. Continued obvious on wheat [tillering] state-wide. (T. Sim, IV).

District> County	Prevalence (%)	Severity (%)	Host height (cm)
NE> Jackson	trace to 50	moderate to severe	15-20
NE> Pottawatomie	trace to 80	moderate	8-20
NE> Marshall	trace to 60	moderate to severe	8-20
NC> Washington	trace to 80	moderate	15
NC> Clay	10	moderate	25
NC> Republic	30	moderate	13
NC> Jewell	10-25	moderate	13
NC> Mitchell	20-60	moderate	13
C> Saline	10-30	moderate to severe	13
C> Ellsworth	trace	moderate	not given
C> Rush	trace	moderate	not given
C> Barton	1	moderate	not given
C> Rice	10-20	severe	not given
C> McPherson	15	moderate to severe	10-25
C> Dickinson	10-80	moderate	10
C> Marion	10-60	moderate	15
SC> Harvey	trace to 90	moderate to severe	15-25
EC> Geary	5-20	moderate	13
EC> Wabaunsee	50	moderate	13
EC> Shawnee	10-80	moderate to severe	15
EC> Anderson	trace	light	13-20
SE> Allen	10	light	20-23
SE> Labette	10	severe	28
SW> Gray	30-50	not given	not given

WHEAT SPINDLE STREAK MOSAIC VIRUS - VIRGINIA - District> County= status on wheat April 15-17: E> Accomack, Richmond, and Westmoreland, and C> Caroline= presence confirmed by electron microscopy. (S.A. Tolin).

INSECTS

GREENBUG (*Schizaphis graminum*) - TEXAS - Heavy in few wheat fields in Blacklands and Rolling Plains areas April 4-18. (E.P. Boring, III).

<u>District> County</u>	<u>Counts per 0.3 row m of small grains</u>
Blacklands> Collin	heavy in few fields
Blacklands> Hunt	heavy in few fields
Cross Timbers> Archer	0-18
Southern Low Plains> Baylor	0-18
Northern Low Plains> Foard	0-33
Northern Low Plains> Wichita	0-225
Northern Low Plains> Wilbarger	0-225
Trans-Pecos> El Paso	0-5

TARNISHED PLANT BUG (*Lygus lineolaris*) - OHIO - District> County= adults per sweep of winter wheat [tillering begins to leaf sheaths strongly erected]: WC> Hardin= 0.01, NW> Allen= 0.02, Putnam= 0.01, Henry= 0.01, NC> Sandusky= 0.01 and 0.02 in 2 fields, and C> Union and NW> Henry= none in 1 field each. (R.W. Wadleigh).

CHINCH BUG (*Blissus leucopterus leucopterus*) - NEBRASKA - District> County= adults on wheat: SE> Pawnee and E> Lancaster= active in 2 fields and up to 25 per 0.3 row m in latter county. (Roselle).

WHEAT CURL MITE (*Eriophyes tulipae*) - KANSAS - District> County= status on wheat week ending April 18: SC> Pawnee and Reno= moderate on volunteer plants, symptoms of WHEAT STREAK MOSAIC VIRUS absent. (T. Sim, IV).

TURF, PASTURES, RANGELAND

INSECTS

WESTERN TENT CATERPILLAR (*Malacosoma californicum*) - NEVADA - District> County= status on bitterbrush: W> Lyon= damage heavy at Dayton. (R. Rowe).

GREENBUG (*Schizaphis graminum*) - ARKANSAS - Heavy in pastures across north-eastern, southwestern, and, most recently, northwestern areas. District> County= damage to orchardgrass: NW> Washington= severe in pastures. (B.F. Jones). OHIO - District> County= status: SW> Hamilton and Montgomery= swept from home lawns at Cincinnati and Dayton, respectively. (H. Niemczyk, G. Hazer).

FORAGE LEGUMES

DISEASES

SPRING BLACK STEM AND LEAF SPOT (*Phoma medicaginis*) - KANSAS - Became more widespread on alfalfa statewide week ending April 18. Recent cool weather favored development. (T. Sim, IV).

District> County	Prevalence (%)	Host height (cm)	Defoliation (%)
NE> Marshall	50	5	none
NE> Riley	5	8	none
NC> Clay	not seen	5	none
NC> Republic	50	5	none
NC> Jewell	90	13	1-25
C> Saline	90-100	13	1-25
C> Dickinson	60-100	13	none
C> McPherson	100	15	1-25
C> Marion	100	8	none
SC> Harvey	100	8-20	none
SC> Comanche	100	18	1-25
SC> Barber	100	10	1-25
SC> Pawnee	trace	8-10	none
SE> Butler	100	13	none
SE> Allen	100	15	1-25
SE> Elk	100	15-20	1-25
SE> Montgomery	90-100	15-23	1-25
SW> Finney	not seen	8	none
SW> Haskell	not seen	8	none
SW> Gray	trace	8-10	none
EC> Anderson	100	13	1-25

LEPTO LEAF SPOT (*Leptosphaerulina briosiana*) - KANSAS - Became more widespread on alfalfa statewide week ending April 18. (T. Sim, IV).

District> County	Prevalence (%)	Host height (cm)	Defoliation (%)
NE> Marshall	not seen	5	none
NE> Riley	30	8	none
NC> Clay	10	5	none
NC> Republic	not seen	5	none
NC> Jewell	not seen	13	1-25
C> Saline	trace	13	1-25
C> Dickinson	trace to 40	13	none
C> McPherson	not seen	15	1-25
C> Marion	not seen	8	none
SC> Harvey	not seen	8-20	none
SC> Comanche	not seen	18	1-25
SC> Barber	not seen	10	1-25
SC> Pawnee	not seen	8-10	none
SE> Butler	not seen	13	none
SE> Allen	60	15	1-25
SE> Elk	60	15-20	1-25
SE> Montgomery	10-90	15-23	1-25
SW> Finney	not seen	8	-
SW> Haskell	not seen	8	-
SW> Gray	not seen	8-10	none
EC> Anderson	70	13	1-25

STEM AND BULB NEMATODE (*Ditylenchus dipsaci*) - NEW MEXICO - District> County= status on alfalfa: SE> Eddy and Chaves= contributed to reducing plant vigor. (L. Gholson).

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEW MEXICO - District> County= larval (all instars) average per 25 sweeps of alfalfa: SE> Eddy= 25-30 in 3 fields near Espuela, and Chaves= 12-20 in 5 fields in Hagerman area. (T. Riddle). Most fields treated last 2 months. SE> Eddy, Chaves, and Lea= major adult emergence during past 2 periods. (L. Gholson). MISSOURI - Larvae, 2nd and 3rd instars, economic in south-central area. Frost damage in all fields in southwestern area. (R.E. Munson).

District> County	Larvae per plant	Host height (cm)	Plants infested (%)
C> Laclede	2.57	-	35
SC> Wright	1.60	10-18	70
SC> Texas	1.60	10-18	50
SC> Texas	1.00	10-18	15
SW> Stone	none	15	none
SW> Christian	none	15	none

TENNESSEE - Alfalfa weevil infestations in western area averaged 42%. Alfalfa cutting began in Lake County and other areas of Delta district, most stands treated or should be treated. Status on alfalfa (parasite-release fields that will never receive treatment (*); fall-seeded fields (**)). (M. Cooper et al.):

District> County	Larvae per sweep	Adults per sweep	Tips infested (%)
East Tennessee> Knox	26.13	0.15	70
East Tennessee> Sevier	48.7	0.4	90
Cumberland Plateau> Cumberland	2.25	0.06	30
Central Basin> Marshall*	35.5	0.05	100
Central Basin> Maury*	27.3	0	100
Central Basin> Maury**	27.6	0.3	87
Central Basin> Williamson	8	0	48
Western Rim> Robertson*	137.4	0.55	100
Western Rim> Robertson**	13.2	0.5	80

KENTUCKY - District> County= alfalfa weevil larvae on forage legumes April 7-11: Midwestern> Simpson= damage evident in 13 monitored fields, no fields above economic threshold. (M. Stoval). Current larvae on alfalfa [host height]: Bluegrass> Fayette= 1st to 3rd instars averaged 4.5 (visual examination of 30 stems) per stem [19 cm], more than doubled since April 1, damage just began to show; Anderson= averaged 56-85 per stem (shaken from 30-stem samples) [18-30 cm] in 4 of 5 fields, and only 18 [18-30 cm] in sample for fifth field that was fall seeded, treatment recommended in all fields; Midwestern> Todd= 80% of fields just below economic threshold and expected to need treating soon and Christian= 2 (9.3 ha) of 9 fields (57.9 ha) above economic threshold, many fields near threshold and expected to exceed it soon. (P.E. Sloderbeck et al.).

ILLINOIS - Unseasonably warm weather caused rapid increase of alfalfa weevil activity; some of following fields south of U.S. Highway 50 will require treatment next few days. District> County= larvae (3rd instars present) and percent tip feeding per 30 stems of alfalfa [41 cm tall]: SW> Johnson= 127 and up to 20%, Washington= 174 and up to 25%, and Monroe= 99 and up to 20%; other counties in SW and SE> no data and less than 15%. Many adults active overall.

(A.M. Agnello). WISCONSIN - No adult activity yet on forage legumes. (O.L. Lovett). OHIO - District> County= status on alfalfa: SE> Washington= 1st instar larvae noted. (K. Essman). Adults on alfalfa from sweeping or shaking: C> Union= 0.5 per 0.09 sq m and NW> Henry= 0.01 per sweep; on red clover: C> Union= 0.33 per 0.09 sq m. (R.W. Wadleigh).

VIRGINIA - Alfalfa weevil tip infestation 21%; defoliation averaged about 17%. (G.L. Clement). Tip infestation rates based on 5 samples of 10 tips each on forage legumes April 15-22 (D.L. Barnes, W.C. Brown):

District> County	Infestation (%)	Defoliation (%)	Tips infested per 50 tips	Hectares sampled
C> Bedford	4	0	2	1
C> Bedford	6	0	3	2
C> Bedford	52	40	26	2
C> Bedford	40	25	20	2
N> Fauquier	4	20	2	3

MARYLAND - Alfalfa weevil damage in central area. Hatch occurring statewide and populations expected to increase rapidly next 2 periods. District> County= 1st and 2nd instar larvae on forage legumes: NC> Washington, Frederick, and Carroll= heaviest damage averaged 15% tip damage, only 1 field of 30 reached spray threshold. (R. Hochmuth, J.L. Hellman).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Maricopa= larvae 1-540 and adults 2-10, and Pinal= adults 10. (A. Vaughan et al.).

CLOVER LEAF WEEVIL (Hypera punctata) - OHIO - District> County= larvae per 0.09 sq m of alfalfa processed in alfalfa shaker: C> Union= 2, NW> Putnam= 0.66, Henry= 0.33, and NC> Sandusky= 2; on mixed red clover and timothy: C> Union= 1.6, WC> Hardin= 4.3, and NW> Henry= 1.6. (R.W. Wadleigh).

ARMY CUTWORM (Euxoa auxiliaris) - NEBRASKA - District> County= 4th and 5th instar larvae per 0.09 sq m of alfalfa: NW> Scotts Bluff, Morrill, and SW> Southern Sioux= up to 6 in established fields and C> Dawson= up to 4 in 3 of 20 fields. No significant damage observed. (Hagen et al.).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - District> County= counts of this species and PEA APHID (Acyrtosiphon pisum) per sweep of alfalfa: S> Nye= averaged 500 throughout Pahrump. (R. Lauderdale).

PEA APHID (Acyrtosiphon pisum) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: C> Maricopa= 500 and SE> Graham= 20-30. (A. Vaughan et al.). MISSISSIPPI - District> County= counts of this vector of BEAN YELLOW MOSAIC VIRUS on alfalfa: EC> Neshoba= moderate. (R. Anderson).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 400-500. (A. Vaughan et al.). NEVADA - District> County= counts per sweep of alfalfa: S> Nye= averaged 200, alfalfa damaged and cut early at Pahrump. (R. Lauderdale).

LYGUS BUGS (Lygus spp.) - ARIZONA - District> County= counts per 100 sweeps of alfalfa: C> Maricopa= nymphs 1 and adults 10-270, Pinal= adults 10, and SW> Yuma= adults 4-20. (A. Vaughan et al.).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OHIO - District> County= adults per sweep of alfalfa: NW> Putnam= 0.06 and Henry= 0.02; on red clover: WC> Hardin= 0.01. (R.W. Wadleigh).

BROWN WHEAT MITE (*Petrobia latens*) - NEW MEXICO - District> County= status on alfalfa: SE> Chaves, Eddy, and Lea= controls applied to about 2,000-2,400 of about 3,000-4,000 ha monitored. (L. Gholson).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - TEXAS - Adults increased in traps in Lower Gulf Coast area. District> County= adult counts on cotton April 14-18: Coastal Bend> Nueces= heavy in traps, Kleberg= light in traps, Upper Coast> Fort Bend= 2.5-73.5 in 4 traps per week, Lower Rio Grande Valley area> 0-2.2 per trap per week, Lower Gulf Coast area> 0-1 on 100 plants, and Brazos Bottom area> light in traps. (J. Cocke et al.).

SOUTH CAROLINA - Male boll weevil catches heavy April 8-22 in most counties reporting (M.E. Gilreath):

<u>District> County</u>	<u>Average per trap</u>	<u>Range</u>
E> Dillon	7.21	0-52
E> Marlboro	2.85	0-26
C> Calhoun	23.5	0-110

TENNESSEE - District> County= boll weevil males in pheromone traps: Central Basin> Lincoln, West Tennessee> Madison, Hardeman, Fayette, Haywood, Gibson, Crockett, Delta> Shelby, Dyer, Lauderdale, and Tipton= negative in 1-4 traps each (M.E. Cooper), and McNairy= 2 in trap 5 km south of Ramer (B. Wyatt, J. Locke).

BOLLWORMS (*Heliothis* spp.) - TEXAS - District> County= status of BOLLWORM (*Heliothis zea*) and TOBACCO BUDWORM (*Heliothis virescens*) on cotton April 3-18: Upper Coast> Fort Bend= bollworm 7-11 per trap per night, Lower Rio Grande Valley area> eggs and larvae of both species infested 15%, and Lower Gulf Coast area> 0-9 per 100 plants, terminal damage 2-13%. (J. Cocke).

COTTON FLEAHOPPER (*Pseudatomoscelis seriatus*) - TEXAS - Area> counts per 100 cotton plants April 14-18: Lower Rio Grande Valley> nymphs and adults up to 16 and Lower Gulf Coast> 0-10. (J.W. Norman).

GENERAL VEGETABLES

INSECTS

ASPARAGUS BEETLE (*Crioceris asparagi*) - SOUTH CAROLINA - First eggs of season. District> County= eggs on asparagus spears: NW> Pickens= in garden. (R.P. Griffin). IDAHO - First adults of season. District> County= adults on asparagus: SC> Twin Falls= on plants at Twin Falls. (R.L. Stoltz).

SPOTTED ASPARAGUS BEETLE (*Crioceris duodecimpunctata*) - IDAHO - First adults of season. District> County= adults on asparagus: SC> Twin Falls= on plants at Twin Falls. (R.L. Stoltz).

DECIDUOUS FRUITS AND NUTS

DISEASES

APPLE SCAB (*Venturia inaequalis*) - KANSAS - District> County= ascospore releases on fruits: Extreme SE area> still released week ending April 18; NE> Riley at Manhattan, and Doniphan at Wathena= none April 16. (T. Sim, IV).

INSECTS

LESSER PEACHTREE BORER (*Synanthedon pictipes*) - WASHINGTON - District> County= 1st to 4th instar larvae on prunes April 18: C> Yakima= 2 ha affected. (A. Gregorich).

REDBANDED LEAFROLLER (*Argyrotaenia velutinana*) - VIRGINIA - District> County= adults in pheromone traps April 21: N> Frederick= 36 in Pherocon 1c traps. (L. Cobb).

PEAR PSYLLA (*Psylla pyricola*) - WASHINGTON - District> County= status April 18: C> Yakima= eggs on pear [60% bloom] at Zillah. (A. Gregorich). OHIO - District> County= eggs per 3 cm of fruit spur on pear [approaching clusterbud]: NC> Sandusky= 3.85 deposited by overwintering females. (R.W. Wadleigh). NEW HAMPSHIRE - Adult females active in field and laying eggs. Area> eggs on pears: S> present on trees. (A.T. Eaton).

POTATO APHID (*Macrosiphum euphorbiae*) - CALIFORNIA - District> County= adults per stem and growing tip of apple: San Joaquin Valley> Fresno= appearance sporadic, averaged 4 at Miramonte. (T. Kono).

ROSY APPLE APHID (*Dysaphis plantaginea*) - VIRGINIA - District> County= counts on apple twigs April 21: N> Frederick= heavy. (L. Cobb).

TARNISHED PLANT BUG (*Lygus lineolaris*) - NEW HAMPSHIRE - Area> overwintered adults on apples [green tip]: S> active on warm days in orchard. (A.T. Eaton).

EUROPEAN RED MITE (*Panonychus ulmi*) - OHIO - Overwintering eggs not hatched as of April 22. District> County= eggs per 3 cm of fruit spur on fruit trees [host stage]: NC> Sandusky= 15 on McIntosh apple [13 mm green tip], 0.2 on Red Delicious apple [6.4-13 mm green tip], and 0.05 on pear [close to clusterbud] (R.W. Wadleigh); and C> Fairfield= no data on Red Delicious apple [tight cluster] (R.P. Holdsworth). Eggs on various fruits [host stage]: NC> Sandusky= none on apricot [near bloom], peach [bud swell], sour cherry [swelling buds with green tips exposed], plum [6.4 mm green tip], sweet cherry [swollen green buds], Jonathan apple [13 mm green tip], and Golden Delicious apple [6.4 mm green tip]. (R.W. Wadleigh). VIRGINIA - First of season. District> County= emergence from overwintered eggs April 21: N> Frederick= hatch begun. (L. Cobb).

WINTER MOTH (*Operophtera brumata*) - OREGON - County= larval average per leaf cluster on filbert: Washington= continued to decline, mostly 3rd instars, 1.1 on April 14 compared with 0.8 on April 18 in abandoned orchard near Wilsonville. (R.L. Penrose et al.).

SMALL FRUITS

INSECTS

REDBACKED CUTWORM (Euxoa ochrogaster) - WASHINGTON - District> County= 1st to 3rd instars on Gewurz traminer grape April 18: C> Benton= light on 12 ha at Patterson. (S. Clarke, W. Cone).

PACIFIC SPIDER MITE (Tetranychus pacificus) - CALIFORNIA - District> County= nymphs and adults per grape leaf April 15: San Joaquin Valley> Fresno= averaged 5. (T. Kono).

ORNAMENTALS

INSECTS

CAMPHOR SCALE (Pseudaulnecia duplex) - VIRGINIA - New State record. District> County= collection data from Ilex crenata burfordii (Burford holly): C> Henrico= adults at Richmond, March 24, 1980, by R. Bailey, determined by M.H. Rhoades. (P.B. Schultz).

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - New county record. District> County= collection data from Serenoa repens (saw palmetto): C> Levy= all stages light on leaves, growing in wild near Williston, April 1, 1980, collected by F. McHenry, determined by A.B. Hamon. (F. McHenry).

FOREST AND SHADE TREES

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - CALIFORNIA - New State record. District> County= collection data from Pinus ponderosa (ponderosa pine): Siskiyou-Shasta> Siskiyou= in yard of residence at Yreka, March 10, 1980, by F.D. Horn, determined by A. Weiner and R. Hackney. Tree about 8 years old and about 2 km from forest. Tree cut down. (C.S. Papp).

INSECTS

WHITE PINE WEEVIL (Pissodes strobi) - NEW HAMPSHIRE - First of season. County= adult status: Strafford= noted resting on sides of buildings at Durham, April 18. Additional adults noted on April 20. (W.J. Morse, J.F. Burger).

A MARGARODID SCALE (Matsucoccus acalyptus) - NEW MEXICO - District> County= status on pinyon pine: SE> Chaves= heavily damaged ornamental planting at Roswell. (M. Perry).

VIRGINIA PINE SAWFLY (Neodiprion pratti pratti) - KENTUCKY - Defoliation should be negligible to very light, maximum around 10%, possibly with few very localized outbreaks with defoliation 20-30%. Area> winter egg survey of southern hard pines: E> eggs in 10 of 32 counties. (R. Dorsett).

LOBLOLLY PINE SAWFLY (Neodiprion taedae linearis) - KENTUCKY - Little problem expected in 1980. District> County= winter egg survey: Midwestern> Caldwell, Purchase> Lyon, McCracken, and Trigg= none. (R. Dorsett).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - WISCONSIN - District> County= larval emergence: SC> Dane= earliest in eastern area. Minimum foliage on most trees enough to support infestation. Control efforts in next 2 periods

will prove most effective. (O.L. Lovett). NEW HAMPSHIRE - County= eastern tent caterpillar larvae: S area> began hatching April 15 following several days of warm weather and heavy rain, third successive year (1978-1980) hatch began on April 15; Strafford= most began hatching April 16-17, about 80% have hatched, larvae feeding on choke cherry twigs and other fruit trees. (J.F. Burger).

MAN AND ANIMALS

INSECTS

FACE FLY (*Musca autumnalis*) - MISSOURI - District> County= counts per face on cattle: SW> Stone= 0-12 (averaged less than 1) on 370 cows and calves. (R.E. Munson).

A BLACK FLY (*Prosimulium mixtum*) - NEW HAMPSHIRE - First adults of season. Area> County= adult status: SE> began to emerge from streams April 18, little biting activity to date, emergence expected to continue next 10 days, biting activity should increase rapidly then. Strafford= about 70% of specimens in field in pupal stage. (J.F. Burger).

MOSQUITOES - OHIO - District> County= *Culex* sp. adult status April 23: C> Franklin= active, biting of humans not reported. (R. Berry). NEW HAMPSHIRE - County= status: Strafford= early season 3rd instars of *Aedes stimulans*, *Aedes provocans*, and *Aedes abserratus* in field, warm weather plus rain accelerated development and caused additional hatching in flooded area. S area> *Anopheles punctipennis* adults very active on warm evenings, biting averaged 2-3 per minute in wooded areas. (J.F. Burger).

CATTLE GRUBS (*Hypoderma* spp.) - MISSOURI - District> County= larvae per cow: SW> Stone= 1-3 (averaged 4.6) on 68% of 200 cows. (R.E. Munson).

AMERICAN DOG TICK (*Dermacentor variabilis*) - WISCONSIN - First activity of season. District> County= NE> Langlade and WC> Buffalo= noted, and NE> Forest= none as of April 19. (O.L. Lovett).

MISCELLANEOUS WILD PLANTS

INSECTS

A DIASPIDID SCALE (*Situlaspis yuccae*) - CALIFORNIA - New host record for State. District> County= collection data from *Holacantha emoryi* (crucifixion thorn): Southern California> Imperial= up to 100 per spine on several plants in small grove at Ocotillo, April 3, 1980, by D. Katz and M. Fitzurka. Native to arid Southwest. (C.S. Papp).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (*Entomophthora* sp.) - KENTUCKY - Began to infect alfalfa weevil. District> County= infected *Hypera postica* (alfalfa weevil) larvae: Bluegrass> Fayette= 1 on April 21 and Anderson= 3 on April 23, fungus may or may not be same species active on CLOVER LEAF WEEVIL (*Hypera punctata*) for several weeks. (J.C. Parr et al.).

INSECTS

A BRACONID WASP (Macrocentrus grandii) - WISCONSIN - District> County= parasitism of Ostrinia nubilalis (European corn borer): SC> Dane, Columbia, Rock, and SW> Iowa= almost 30% of overwintering borer larvae collected this spring, but laboratory observations not complete. (O.L. Lovett).

A HALICTID BEE (Halictus rubicundus) - IDAHO - First adults of season. District> County= adult status April 12: N> Latah= at permanent nesting site at Moscow. (W.F. Barr).

SPIDER MITE DESTROYER (Stethorus picipes) - WASHINGTON - District> County= status on Delicious apple [prepink] April 18: C> Yakima= on trees in Zillah and Wapato. (A. Gregorich).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASSHOPPERS - OREGON - Area> status of primarily Melanoplus spp.: C> began to emerge, and Grant County> first nymphs hatched on south-facing slopes near Monument and Mount Vernon. (A. Isleigh, J.L. Mellott). NEW MEXICO - District> County= nymphs per 0.8 sq m of alfalfa: SE> Chaves= averaged 30-35 along edges of fields in Hagerman area. (T. Riddle). NEBRASKA - District> County= hatch of mixed species: SW> Keith and N> Brown= underway. (Campbell).

GYPSY MOTH (Lymantria dispar) - OHIO - Eggs began hatching from screened egg masses April 22. (K. Roach).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - District> County= adults per pheromone trap per day: C> Maricopa= 0-24 and SW> Yuma= 0-4. (S. Mitchell et al.).

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - New county record. District> County= collection data: WC> Saluda= collected on residential lot along edge of Lake Murray, March 6, 1980, by P. Langford, determined by R.F. Bollinger. (H.B. Jackson).

SCREWORM (Cochliomyia hominivorax) - One case reported from continental United States, April 13-19 from Texas. Total of 9 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 160 cases reported in Mexico south of eradication zone. Number of sterile flies released this period totaled 8,989,560, all in Texas. Total of 168,089,700 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

HAWAII PEST REPORT

General Vegetables - IMPORTED CABBAGEWORM (Pieris rapae) - Island= eggs and adults on head cabbage week ending April 18: Oahu= moderate to heavy on 0.8 ha at lower Pulehu at 549 m, egg laying heavy on wild mustard in wayside areas. (T.M. Hori, N. Miyahira).

Ornamental and Shade Trees - A WHITEFLY (Orchamoplatus mammaeferus) - New host record for State. Island= collection data from Mammea americana (mammee-apple): Oahu= moderate on tree at Kaimuki, April 3, 1980, collected by B.R. Kumashiro, D.K. Kosaka, and W.I. Kobayashi, determined by S.Y. Higa. (L.M. Nakahara).

Man and Animals - WESTERN YELLOWJACKET (Vespula pensylvanica) - First record of aerial nest in State. Island= status: Hawaii= aerial nest excavated in ohia forest on ranch near Kealahou (Kona) March 20. Aerial nest at 1,000-m elevation constructed on trunk of large ohia tree. Nest measured 66 cm high and 66 x 76 cm across near the bottom, total comb area about 8,129 sq cm. Fully-grown larval and pupal population estimated at 33,800 (26,900 workers, 4,800 males, 2,100 queens). First record of large numbers of queens apparently produced during March. Adult population estimated at 12,400 (9,200 workers, 2,800 males, 400 queens). Colony believed to be 2-years-old and thriving. (L.M. Nakahara).

Snail Pest - GIANT AFRICAN SNAIL (Achatina fulica) - Island= March surveys: Hawaii= dispersing at Keahou in Kona, infestations heavy along Kamehameha Highway between Alii Drive and Kuakini Highway; Kauai= large snail discovered in guava nursery at Kilauea, no additional snails with subsequent baiting and searching. (E.R. Yoshioka, D.T. Sugawa).

DETECTION

NEW STATE RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - CALIFORNIA - Siskiyou County. (p. 267).

INSECTS

CAMPBOR SCALE (Pseudaonidia duplex) - VIRGINIA - Henrico County. (p. 267).

NEW COUNTY RECORDS

DISEASES

SOIL-BORNE WHEAT MOSAIC VIRUS - KANSAS - Hodgeman and Stevens. (p. 260).

INSECTS

A DIASPIDID SCALE (Comstockiella sabalis) - FLORIDA - Levy. (p. 267).

A DIASPIDID SCALE (Lecanodiaspis prosopidis) - FLORIDA - District> County= collection data from undetermined deciduous tree: C> Hernando= nymphs and adults heavy on residential property at Brooksville, April 7, 1980, collected by R. Phillips, determined by A.B. Hamon. (R. Phillips).

RED IMPORTED FIRE ANT (Solenopsis invicta) - SOUTH CAROLINA - Saluda. (p. 269).

WEEDS

BLUE MUSTARD (Chorispora tenella) - CALIFORNIA - District> County= collection data: San Joaquin Valley> Merced= this noxious weed collected along railroad right-of-way near La Grand, March 14, 1980, by L. Hager and T. Palmer; and Stanislaus= collected near Hughson, March 27, by T. Palmer. Both determined by D. Barbe. (D. Barbe).

[illegible]

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff Plant Protection and Quarantine Programs, USDA

<u>Life Stage</u>	<u>Host</u>	<u>Probable Origin</u>	<u>Port of Entry</u>	<u>Officer</u>	<u>Destination</u>
<u>Elsinoe australis</u> Bitanc. & <u>sweet orange scab</u> Jenkins Det. E. Feliu	perfect on sweet oranges from stores	Brazil	San Juan	A. Ludtke	--
<u>Phomopsis</u> sp. a fungus Det. P.M. Grosser	imperfect on dried fruit of <u>Taxus</u> from mail	Japan	Hoboken	P. Grosser	MA
<u>Hadria maldonadoi</u> Yong a cicadid Det. J.P. Kramer	adult with <u>Brassica</u> from cargo	Puerto Rico	New York	R. Scott	NY
<u>Lindingaspis tingi</u> McKenzie a diaspidid scale Det. S. Nakahara	adult on leaves of <u>Phalaenopsis</u> from cargo	Philippines	San Francisco	P. Meyerson	CA
<u>Lycetus simplex</u> Reitter a lyctid beetle Det. T.J. Spilman	larval pupal adult in wood crates	Brazil	Seattle	G. Browne	OR
<u>Meristhus</u> sp. an elaterid beetle Det. T.J. Spilman	larval with <u>Cycas</u> plants from cargo	Japan	Los Angeles	J. Dooley	CA
<u>Sybra</u> sp. a cerambycid beetle Det. D.M. Anderson	larval in seeds of <u>Cycas</u> from cargo	Japan	Los Angeles	S. Downing	TX
<u>Tetranychus</u> sp. a tetranychid mite Det. R. Eads	adult on leaves of <u>Coriandrum</u> from cargo	Mexico	El Paso	L. Holguin	TX

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142885

LIBRARY

34/033NIDLANESR R1 CPR-0001

DR IVAN W KIRK ASST AD

USDA SER SR

P O BOX 19687 S REG RES CNTR

NEW ORLEANS

LA 70179



256823
Cooperative
**PLANT
PEST
REPORT**

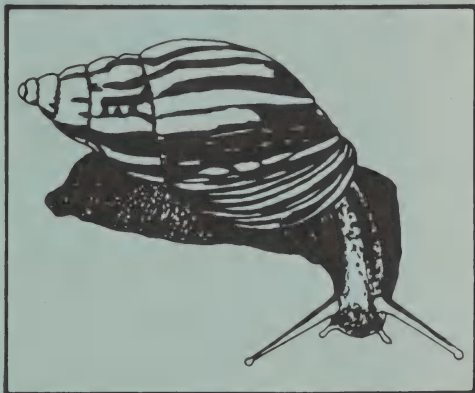
U.S.
DEPARTMENT
OF AGRICULTURE

May 9, 1980

Animal
and Plant
Health
Inspection
Service

Vol. 5

No. 15



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

WHEAT STREAK MOSAIC symptoms on wheat in Kansas. (p. 276).

ALFALFA WEEVIL infestations in Oklahoma heavier than in last 3 or 4 years. (p. 278).

South TEXAS is not major source of inoculum for WHEAT STEM RUST for U.S. wheat areas in 1980. (p. 285).

Predictions

EUROPEAN CORN BORER female flight in Maryland expected to begin first week in May. (p. 275).

OAT CROWN RUST should be less in U.S. in 1980 than in 1979 if normal conditions prevail. (p. 275).

OAT STEM RUST expected to be light in U.S. in 1980. (p. 285).

PECAN NUT CASEBEARER activity dates in Texas. (p. 283).

Detection

PINEWOOD NEMATODE is new for Virginia. (p. 284).

For new county and island records see page 287.

First North American record of PINEWOOD NEMATODE association with beetle larva in California. (p. 284).

Some First Occurrences of the Season

EUROPEAN CORN BORER adult in Maryland. CEPHALOSPORIUM STRIPE on wheat, ALFALFA DOWNY MILDEW on alfalfa, ascospores for APPLE SCAB, and PEACH LEAF CURL in Kansas. ROSY APPLE APHID in New York. CEREAL LEAF BEETLE adult in Indiana.

Reports in this issue are for the week ending May 2 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane Insects.....	275	Deciduous Fruits and Nuts Diseases.....	281
		Insects.....	281
Small Grains Diseases.....	275	Citrus Insects.....	284
Insects.....	276	Ornamentals Insects.....	284
Turf, Pastures, Rangeland Insects.....	277	Forest and Shade Trees Diseases.....	284
Forage Legumes Diseases.....	277	Insects.....	284
Insects.....	278	Man and Animals Insects.....	285
Cotton Insects.....	279	Households and Structures Insects.....	285
Potatoes, Tomatoes, Peppers Insects.....	280		
General Vegetables Insects.....	280		
Beneficial Organisms and Their Enemies Insects.....	285		
Federal and State Programs Diseases.....	285		
Insects.....	286		
Hawaii Pest Report.....	286		
Detection.....	287		
Corrections.....	286		
Light Trap Collections.....	288		
Pest Interceptions of Quarantine Significance at Ports of Entry.....	289		

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - WISCONSIN - Corn stubble dissections continued to indicate heavy overwintering survival. District> County= overwintering survival: EC> Winnebago= 83%, C> Green Lake= 96%, SW> Grant= 84%, and SC> Columbia= 88%. (O.L. Lovett). INDIANA - District> County= larval status in upright cornstalks: SC> Jackson= no pupation. (R.W. Meyer). MARYLAND - First adult of season. District> County= status: Eastern Shore> Talbot= male collected in blacklight trap April 25, female flight activity expected to begin first week in May. (R. Hockmuth).

SMALL GRAINS

DISEASES

Winter was warmer with near average precipitation and winter-like conditions continued later in spring than normal in southern cereal areas. Severe freeze on March 1 killed some spring-planted cereals and severely damaged foliage of wheat planted in much of Texas. Rain needed in Texas Panhandle where high winds depleted top soil moisture. Condition of Kansas wheat crop still good to excellent except for central and south-central region where condition poor to fair. The 30-degree Celsius temperatures in the eastern Dakotas and western Minnesota, April 23-30 accelerated small grain planting. Three major winter cereal areas of Mexico visited in March. In irrigated area just south of Texas border, crop in excellent condition. In high valleys of El Bajio area, hectares greatly reduced due to lack of irrigation water during winter but crop in good to excellent condition. Along western coast, record wheat yields expected. (A.P. Roelfs, D. Long).

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) light on wheat cultivars of Milam and Nadadores 63 in commercial fields south of San Antonio, TEXAS, in first week of April; some losses may occur in late-planted fields. Severe in nurseries at Giddings, San Antonio, and College Station, Texas. South Texas not major inoculum source for U.S. wheat areas in 1980. (A.P. Roelfs, D. Long).

OAT CROWN RUST (*Puccinia coronata* var. *avenae*) light on oats in south TEXAS commercial fields and heavy on susceptible cultivars in nurseries in early April. Severe in northeastern MEXICO in susceptible nursery plots but scarce in commercial fields. Should be less in U.S. than in 1979 if normal conditions prevail. Could be severe in late fields in south Texas by end of April. (A.P. Roelfs, D. Long).

BARLEY LEAF RUST (*Puccinia hordei*) trace on barley in south TEXAS nurseries April 17-30. There is much less rust for 1980 than in 1979. Moderate on late-maturing lines in MEXICO; most commercial fields mature. (A.P. Roelfs, D. Long).

For stem rusts on small grains see page 285.

SPECKLED LEAF BLOTCH (*Septoria tritici*) - KANSAS - One of 2 most common foliar wheat diseases in eastern and central areas. Status on wheat [tillering (not reported for Mitchell County)] week ending April 25 (T. Sim, IV):

District> County	Prevalence (%)	Severity (%)	Host height (cm)
NE> Doniphan	trace	light	15-33
NE> Brown	not seen	not seen	15-23
C> Saline	10	light	28-33
C> Dickinson	10	light	25-28
EC> Morris	not seen	light	23-33
EC> Lyon	20	light	25
NC> Mitchell	not seen	not seen	-

CEPHALOSPORIUM STRIPE (*Cephalosporium gramineum*) - KANSAS - First of season. District> County= prevalence on wheat [jointing] week ending April 25: NC> Ottawa= trace. (T. Sim, IV).

TAN SPOT (*Pyrenophora trichostoma*) - KANSAS - One of 2 most common foliar wheat diseases in eastern and central areas. Status on wheat [tillering (not reported for Mitchell County)] week ending April 25 (T. Sim, IV):

District> County	Prevalence (%)	Severity (%)	Host height (cm)
NE> Doniphan	trace to 10	light	15-33
NE> Brown	20	moderate	15-23
C> Saline	trace	light	28-33
C> Dickinson	10-40	moderate	25-28
EC> Morris	trace to 10	light	23-33
EC> Lyon	not seen	not seen	25
NC> Mitchell	100	severe	-

WHEAT STREAK MOSAIC VIRUS - KANSAS - Warm temperatures statewide April 19-22 encouraged symptom development. District> County= status on wheat week ending April 25: SC> Edwards near Trousdale, and Kiowa= affected 100% plants in 1 field each; C> Lincoln near Denmark and SW> Seward= trace in seeded variety plots; Ford, NC> Mitchell, and Ottawa= infected volunteer wheat. (T. Sim, IV)

SOIL-BORNE WHEAT MOSAIC VIRUS - KANSAS - Area> status on wheat: Statewide> war temperatures April 19-22 caused symptoms to fade but still visible in most affected areas as of April 24. (T. Sim, IV).

INSECTS

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= status on wheat NC> Kay= larvae up to 21 per 0.09 sq m in 1 northern area field as late as April 16, decreased sharply past 2 periods probably due to pupation; NC> Major and WC> Blaine= adults active. (D.C. Arnold).

PALE WESTERN CUTWORM (*Agrotis orthogonia*) - OKLAHOMA - District> County= count on wheat: Panhandle> Cimarron= light to moderate. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - TEXAS - Decreased in Rolling Plains and El Paso areas. Counts on small grains April 21-25 (E.P. Boring, III):

District> County	Counts
Northern Low Plains> Foard	0-17 per 0.3 row m
Northern Low Plains> Wichita	0-157 per 0.3 row m
Northern Low Plains> Wilbarger	0-104 per 0.3 row m
Trans-Pecos> El Paso	0-2

OKLAHOMA - District> County= greenbugs per 0.3 row m of wheat: SW> Jackson= 0-10 in 6 fields, decreased rapidly as wheat heading and parasites and predators heavy; WC> Washita= 200-400 in few fields, decreased; Roger Mills= light; Panhandle> Cimarron= light to moderate; NC> Major= 25-450 and decreased in few fields; Grant, Garfield, Kay, and Noble= 10-500; C> Grady= averaged 2,000 in 1 field, no noticeable decrease and parasitism still light in most fields; Kingfisher= 0-600; and NE> Wagoner= very light. (D.C. Arnold).

BROWN WHEAT MITE (*Petrobia latens*) - OKLAHOMA - District> County= counts on wheat: Panhandle> Cimarron= moderate to heavy and SW> Jackson= decreased to 0-5 per 0.3 row m due to rain. (D.C. Arnold).

TURF, PASTURES, RANGELAND

INSECTS

SOUTHERN CHINCH BUG (*Blissus insularis*) - CALIFORNIA - Early appearance unusual. New county record. District> County= collection data from unspecified grass species: Northern Coast> Humboldt= collected on lawn at Eureka, April 22, 1980, by R. Spadoni, determined by A. Hardy. (A. Hardy).

FORAGE LEGUMES

DISEASES

SPRING BLACK STEM AND LEAF SPOT (*Phoma medicaginis*) and LEPTO LEAF SPOT (*Leptosphaerulina briosiana*) - KANSAS - Continued to affect first alfalfa growth in several areas week ending April 25. (T. Sim, IV).

District> County	Prevalence (%)		Host height (cm)	Defoliation (%)
	Spring black stem and leaf spot	Lepto leaf spot		
NE> Doniphan	70	50	20	1-25
NE> Brown	100	50	20	1-25
NE> Jefferson	50	20	20	none
NE> Pottawatomie	100	60	20-30	1-25
NE> Nemaha	100	not seen	25	none
NE> Marshall	100	not seen	15	none
EC> Lyon	90-100	10-20	30	1-25
EC> Morris	50-70	not seen	23-25	1-25
SE> Elk	100	not seen	25	none
SE> Montgomery	50	40	30	none
C> Saline	100	20	25	1-25
C> Dickinson	100	80	25	1-25

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - KANSAS - First of season. District> County= prevalence (%) on alfalfa [host height] April 21: EC> Wabaunsee= 10% [18-20 cm] and SW> Ford= 50% of newly-seeded plants [15-20 cm] in 1 field. (T. Sim, IV).

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEVADA - District> County= larvae and adults per sweep of seed alfalfa: W> Pershing= 0.02-0.1 and 0.08-0.1 at Lovelock, and Washoe= averaged 1.1 and 0.1 at Reno. (J. Berg et al.). UTAH - District> County= status on forage legumes: S> Washington= damaging, much controls applied in St. George and Hurricane areas. (R. Chase). TEXAS - Counts per sweep of alfalfa April 25 (J.A. Jackman):

District> County	Counts
Trans-Pecos> El Paso	larvae 1-2 in sprayed fields
Trans-Pecos> El Paso	larvae 2-7 in unsprayed fields
Trans-Pecos> Hudspeth in Acala and Fort Hancock areas	adults 0.25-7

OKLAHOMA - Alfalfa weevil larvae infested 50-100% of terminals in untreated alfalfa statewide. Fields treated in all areas, some treated 2, 3, and 4 times in southern half of State. Infestations this season heavier than in last 3 or 4 years in almost all areas. District> County= eggs per 0.09 sq m of alfalfa and degree-day (DD) accumulations (base 8.9°C) through April 30: C> Payne= averaged 12 April 27 and 328 DD, and Grady= 10 April 29 and 397 DD, few newly laid eggs in both samples. Grady and SC> Stephens= adults, newly emerged, 2-3 per 10 sweeps. (D.C. Arnold). MISSOURI - Economic in 8 fields in east-central and south-central areas. District> County= larvae per stem of forage legumes and percent terminals infested in number of fields (f) week ending April 26: E> Crawford= 2.8-6 and 100% in 3f, Washington= 3-5 and 100% in 2f, and SC> Dent= 2.8-5.5 and 90-100% in 3f; all treated. (R.E. Munson).

WISCONSIN - Alfalfa weevil light, adults 5 per 100 sweeps active in western counties. District> County= status on forage legumes: NW> Washburn= egg laying underway as far north as Spooner, April 29. Degree-day accumulations (base 8.9°C): C> Waushara= 86.1 at Hancock, NW> Washburn= 86.1 at Spooner, SW> Grant= 87.8 at Lancaster, SC> Columbia= 92.8 at Arlington, and EC> Door= 44 at Surgeon Bay. (O.L. Lovett).

INDIANA - District> alfalfa weevil on alfalfa [host height]: N districts> tip feeding almost none; C districts> tip feeding almost none north of Indianapolis (D. Matthew et al.) but larvae still mostly small [14-23 cm], infestation 28-72% south of Indianapolis and control can be delayed for another week except where infestation 72%; SW> Sullivan, Knox, Daviess, Spencer, and Dubois Counties= larvae 1.4-10.4 (averaged 4.4) per stem [averaged 27 cm] and infestation 40-100% (averaged 85%) in 7 fields; and SC> Harrison, Jackson, and Washington= larvae 2.2-6.4 (averaged 4.1) per stem [averaged 26 cm] and infestation 24-100% (averaged 84%). Due to cold weather, feeding minor and most fields show little feeding damage. Some growers prepared to cut early while others anticipate normal cutting times within 2 weeks, will try light controls. District> County= heat unit accumulation (base 8.9°C): NW> La Porte= 85.6 at Wanatah, NC> Saint Joseph= 83.9 at South Bend, NE> Allen= 60.6 at Fort Wayne, WC> Tippecanoe= 67.8 at West Lafayette, C> Marion= 102 at Indianapolis, and SW> Vanderburgh= 162 at Evansville. (R.W. Meyer).

VIRGINIA - Tip infestation by alfalfa weevil 62%; defoliation about 17% (G.L. Clement). District> County= number of forage legume tips infested per 50 tips, percent infestation, percent defoliation, and hectares sampled (5 samples of 10 tips each) April 25: N> Culpeper= 31, 62%, 35%, and 10 ha. (R.H. Morris).

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - District> County= counts on alfalfa per 100 sweeps: SE> Cochise= larvae 150 and adults 10 and Graham= larvae 240-400. (P. Gomez et al.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - First of season. District> County= counts per 10 sweeps of alfalfa: NE> Wagoner= averaged 1. (D.C. Arnold).

ALFALFA CATERPILLAR (Colias eurytheme) - WISCONSIN - District> County= larvae, 13-19 mm long, per 10 sweeps of alfalfa: WC> La Crosse and Trempealeau= 4. (O.L. Lovett).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - NEVADA - District> County= counts of this species and PEA APHID (Acyrtosiphon pisum) per sweep of seed alfalfa: W> Pershing= 0-0.2 at Lovelock, and Washoe= averaged 190 at Reno. (J. Berg et al.). UTAH - District> County= status of blue alfalfa aphid and PEA APHID (Acyrtosiphon pisum) on forage legumes: S> Washington= moderately heavy, some control in Santa Clara and Hurricane areas. (R. Chase).

PEA APHID (Acyrtosiphon pisum) - OKLAHOMA - District> County= counts of this species and BLUE ALFALFA APHID (Acyrtosiphon kondoi) (with percent of former species) per 10 sweeps of alfalfa in 1 field each per county: C> Payne= 6,380 (95%), Cleveland= 6,240 (86%), Grady= 6,030 (65%), and Canadian= 5,160 (98%); WC> Beckham, SW> Caddo, C> Grady, and SC> Garvin= 0-10,000 (averaged about 95%); counts depended on how recently fields treated. C> Grady and WC> Washita= heaviest in untreated fields; SW> Jackson, Harmon, Tillman, and Kiowa= 0-50 (averaged 8) per stem in 38 previously treated fields; SE> Choctaw= mostly pea aphid averaged 20 per stem on alfalfa and clover; and NE> Wagoner= 21 per 10 sweeps or alfalfa; NE> Washington= moderate, and NC> Kay= light. (D.C. Arnold).

WISCONSIN - District> County= pea aphid nymphs per 25 sweeps of alfalfa: SW> Lafayette, Grant, and SC> Columbia= 4-12; NW> Washburn and WC> Trempealeau= lighter, about 40% of aphids parasitized. (O.L. Lovett).

LYGUS BUGS (Lygus spp.) - NEVADA - District> County= 1st to 3rd instar nymphs and adults per sweep of seed alfalfa: W> Pershing= 0-0.6 and 0-0.5, heavier in fields infested with FLIXWEED (Descurainia sophia) at Lovelock; and Washoe= averaged 0.8 and 0.3 in experimental field plots at Reno. (J. Berg et al.). ARIZONA - District> County= adults per 100 sweeps of alfalfa: SE> Graham= 300. (P. Gomez et al.).

BROWN WHEAT MITE (Petrobia latens) - NEVADA - District> County= status on hay alfalfa: S> Nye= damage moderate on 8.1 ha in Pahrump Valley. (R. Lauderdale).

COTTON

INSECTS

BOLL WEEVIL (Anthonomus grandis grandis) - TEXAS - Decreased in traps in Lower Rio Grande Valley but increased in fields, increased in traps in south-central and Coastal Bend areas. Status on cotton April 21-24 (C.L. Cole et al.):

<u>District> County</u>	<u>Counts</u>
Lower Valley> Cameron	0-4 per 100 plants
Lower Valley> Hidalgo	0-1 per 100 plants
Lower Valley> Willacy	0-2 per 100 plants
Lower Rio Grande Valley area	adults 0-1.75 per trap
Coastal Bend area	100+ in 8 traps in 4 fields
SC area	emergence increased
Upper Coast> Fort Bend	100+ per trap

SOUTH CAROLINA - District> County= boll weevils trapped: WC> Aiken and S> Barnwell= ranged from 1-3 to 18 (averaged 6.7) per pheromone trap daily, April 18-25; and E> Dillon and Marlboro= averaged 15.2 per trap in 12 traps and 13.9 in 55 traps, respectively, April 8-24. (D.R. Johnson).

BOLLWORMS (Heliothis spp.) - TEXAS - Light in Coastal Bend and Lower Rio Grande Valley areas. Status of BOLLWORM (Heliothis zea) and TOBACCO BUDWORM (Heliothis virescens) on cotton April 21-24 (J.W. Norman et al.):

<u>District> County</u>	<u>Counts</u>	<u>City</u>
Lower Valley> Hidalgo	eggs 1 per 2 row m	Weslaco
Lower Valley> Hidalgo	adults 0 per trap per week	Weslaco
Coastal Bend area	eggs 5-6%	-
Coastal Bend area	larvae decreased	-

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Appeared in Lower Rio Grande Valley and Coastal Bend areas. Counts per 100 cotton plants April 21-25 (J. Cocke et al.):

<u>District> County</u>	<u>Counts</u>	<u>District> County</u>	<u>Counts</u>
Lower Valley> Cameron	0-8	Lower Valley> Willacy	0-5
Lower Valley> Hidalgo	0-20	Coastal Bend area	10-18

POTATOES, TOMATOES, PEPPERS

INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - OREGON - County= overwintered adult status week ending April 25: Umatilla= emerged in Hermiston area. (K. Goeden).

GENERAL VEGETABLES

INSECTS

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - District> County= counts on lettuce: SE> Cochise= eggs 1 per plant and larvae 2 per 10 plants. (D. Cawood).

SEEDCORN MAGGOT (Hylemya platura) - CALIFORNIA - District> County= status on lettuce: San Joaquin Valley> Kern= seemed very heavy at southern Kecks Corner, larvae fed on harvest-ready 'Salinas' variety, crop loss 40% in 14-ha field, about \$60,000 market value. Specimens first noted mid-April. (K. Corwin).

PEA APHID (*Acyrtosiphon pisum*) - ARIZONA - District> County= nymphs and adults per lettuce plant: SE> Cochise= 10 each. (D. Cawood).

DECIDUOUS FRUITS AND NUTS

DISEASES

CEDAR-APPLE RUST (*Gymnosporangium juniperi-virginianae*) - KANSAS - District> County= status on juniper week ending April 25: SE> Cherokee= telial horns began to release spores. (T. Sim, IV).

APPLE SCAB (*Venturia inaequalis*) - KANSAS - First of season. District> County= status on fruit week ending April 25: NE> Doniphan= ascospore release began at Wathena, April 19, some detected April 22, expected to continue in area; and SE area> spore release continued. (T. Sim, IV).

PEACH LEAF CURL (*Taphrina deformans*) - KANSAS - First of season. District> County= status on peaches week ending April 25: SE> Cherokee= obvious in orchards and flowering plantings and SC> Sumner= active in orchard. (T. Sim, IV).

INSECTS

A GRACILLARIID MOTH (*Lithocolletis blancardella*) - NEW YORK - District> County= pheromone trap catches: W> Ontario and Wayne= first caught April 20; Ontario= increased significantly by April 26 (J. Leeper); and SE> Ulster= adults 100 per trap week ending April 20. (R. Weires).

A GRACILLARIID MOTH (*Lithocolletis crataegella*) - NEW YORK - First of season. District> County= status: SE> Columbia= first flight April 20. (R. Weires).

APPLE-AND-THORN SKELETONIZER (*Eutromula pariana*) - IDAHO - District> County= larval status on apple April 29: N> Kootenai and Benewah= active, fed on buds near Coeur d' Alene and Saint Maries, respectively. (C.G. Van Slyke, C.A. Hildebrand).

FRUITTREE LEAFROLLER (*Archips argyrospilus*) - SOUTH CAROLINA - Average per pheromone trap in apple orchard April 13-19 (C.S. Gorsuch):

<u>District> County</u>	<u>Counts</u>	<u>City</u>
NW> Oconee	0.3	Longcreek
NW> Oconee	0	Salem
NW> Oconee	0.4	Mountain Rest
NW> Pickens	0.7	Six Mile

REDBANDED LEAFROLLER (*Argyrotaenia velutinana*) - SOUTH CAROLINA - Average per pheromone trap in apple orchard April 13-19 (C.S. Gorsuch):

<u>District> County</u>	<u>Counts</u>	<u>City</u>
NW> Oconee	2.5	Longcreek
NW> Oconee	0.3	Salem
NW> Oconee	6.7	Mountain Rest
NW> Pickens	7	Six Mile

VIRGINIA - District> County= redbanded leafroller males in Pherocon 1c traps April 28: N> Frederick= 35. (L. Cobb). NEW YORK - District> County= first males in traps: W> Ontario= occurred April 20, and Erie= catches reported. (J. Leeper).

OBLIQUEBANDED LEAFROLLER (*Choristoneura rosaceana*) - IDAHO - District> County= larval status on apples April 22: SW> Payette and Canyon= actively fed on buds and leaves near Fruitland and Sunnyslope, respectively; averaged 50 per tree in some orchards with none apparent in others. (C.R. Baird, H.W. Homan).

A TORTRICID MOTH (*Platynota idaeusalis*) - SOUTH CAROLINA - Average per pheromone trap in apple orchard April 13-19 (C.S. Gorsuch):

<u>District> County</u>	<u>Counts</u>	<u>City</u>
NW> Oconee	0.5	Longcreek
NW> Oconee	0.3	Salem
NW> Oconee	0	Mountain Rest
NW> Pickens	0	Six Mile

PEACH TWIG BORER (*Anarsia lineatella*) - OREGON - County= nearly full-grown larvae on peaches: Washington= mined new shoots in North Plains area. (K. Goeden).

SPRING CANKERWORM (*Paleacrita vernata*) - OKLAHOMA - District> County= status on apples: N> Payne= heavy on trees. (D.C. Arnold).

LESSER APPLEWORM (*Grapholitha prunivora*) - SOUTH CAROLINA - Average per pheromone trap in apple orchard April 13-19 (C.S. Gorsuch):

<u>District> County</u>	<u>Counts</u>	<u>City</u>
NW> Oconee	0.4	Longcreek
NW> Oconee	0.3	Salem
NW> Oconee	0.6	Mountain Rest
NW> Pickens	0	Six Mile

LESSER PEACHTREE BORER (*Synanthedon pictipes*) - SOUTH CAROLINA - District> County= counts per pheromone trap week ending April 25: WC> Edgefield, Saluda, and C> Lexington= 0-139 (averaged 68) in peach orchards. (B. Hallman, C.S. Gorsuch).

A NOCTUID MOTH (*Orthosia hibisci*) - NEW YORK - First egg laying of season. District> County= status: W> Wayne= egg laying reported April 24, adults flying since April 9. (J. Leeper).

ROSY APPLE APHID (*Dysaphis plantaginea*) - NEW YORK First of season. District> County= status: W> Wayne= hatch noted April 24. (J. Leeper).

AN APHID (*Brachycaudus helichrysi*) - CALIFORNIA - District> County= nymphs and adults per leaf of plum: Northern Coast> Humboldt= averaged 15 at Eureka, April 17. (T. Kono).

PECAN NUT CASEBEARER (*Acrobasis nuxvorella*) - TEXAS - District> County= status on pecans April 21: SC> Caldwell= Larvae feeding at Luling. (J.N. Cooper). Activity predictions based on temperature model for various sites obtained by using real time temperatures up to April 20 and then substituting average temperatures into future until development requirements satisfied. Therefore, the closer April 20 is to the date the activity is predicted, the better the prediction should be, because fewer days of average temperature are used in the prediction. Prediction for "10% adult emergence" should be useful in planning monitoring activities using blacklight traps and detecting early egg laying by nut inspection. Prediction for "first significant nut entry" is anticipated spray date. (J.A. Jackman).

District> County	10% adult emergence	First significant nut entry	City
Southern Low Plains> Taylor	May 4	May 15	Abilene
South Texas> Jim Wells	Apr 19	Apr 29	Alice
South Texas> La Salle	Apr 20	Apr 29	Cotulla
Trans-Pecos> Brewster	May 9	May 20	Alpine
Trans-Pecos> El Paso	May 7	May 18	El Paso
Trans-Pecos> Pecos	May 6	May 16	Fort Stockton
Trans-Pecos> Presidio	May 17	May 27	Presidio
Trans-Pecos> Winkler	May 5	May 15	Wink
Northern High Plains> Potter	May 24	Jun 4	Amarillo
Northern High Plains> Dallam	May 27	Jun 7	Dalhart
SC> Travis	Apr 25	May 5	Austin
SC> Bexar	Apr 26	May 6	San Antonio
Upper Coast> Jefferson	Apr 28	May 8	Beaumont
Upper Coast> Galveston	Apr 28	May 8	Galveston
Upper Coast> Harris	Apr 24	May 5	Houston
Upper Coast> Victoria	Apr 26	May 5	Victoria
Lower Valley> Cameron	Apr 17	Apr 27	Brownsville
Lower Valley> Hidalgo	Apr 15	Apr 24	Hidalgo
Northern Low Plains> Childress	May 12	May 23	Childress
Northern Low Plains> Wichita	May 10	May 20	Wichita
East Texas, North> Panola	Jun 8	Jun 19	Clayton
East Texas, North> Gregg	May 6	May 16	Longview
East Texas, South> Brazos	May 1	May 11	College Station
East Texas, South> Angelina	May 3	May 13	Angelina
Coastal Bend> Nueces	Apr 18	Apr 28	Corpus Christi
Blacklands> Tarrant	May 6	May 16	Fort Worth
Blacklands> Dallas	May 1	May 12	Dallas
Blacklands> McLennan	May 4	May 14	Waco
Edwards Plateau> Val Verde	Apr 24	May 3	Del Rio
Edwards Plateau> Kimble	May 4	May 14	Junction
Edwards Plateau> Tom Green	May 3	May 13	San Angelo
Southern High Plains> Lubbock	May 13	May 24	Lubbock
Southern High Plains> Midland	May 9	May 19	Midland
Cross Timbers> Palo Pinto	May 10	May 21	Mineral Wells

OKLAHOMA - First pecan nut casebearer of season. District> County= larvae in pecan shoots: C> Lincoln= light April 28. (D.C. Arnold).

CITRUS

INSECTS

CITRICOLA SCALE (Coccus pseudomagnoliarum) - CALIFORNIA - District> County= adult average per stem of orange: San Joaquin Valley> Tulare= 10 at Tulare, April 18. (R. Gill).

CITRUS THRIPS (Scirtothrips citri) - ARIZONA - District> County= counts per terminal per 25 trees: C> Pinal= 4-9 at Picacho. (F. Brooks).

ORNAMENTALS

INSECTS

LILAC BORER (Podosesia syringae) - VIRGINIA - District> Independent City= males in pheromone traps on lilac April 23: SE> Virginia Beach= 6, and Chesapeake= 11. (P.B. Schultz).

CACTUS SCALE (Diaspis echinocacti) - FLORIDA - New county record. District> County= collection data from Cactus sp. (a cactus): NW> Holmes= heavy on 2 plants at nursery 24 km northwest of Bonifay, November 26, 1979, collected by D. Reese, determined by A.B. Hamon. Host in locality 1+ years. (D. Reese).

FOREST AND SHADE TREES

DISEASES

DUTCH ELM DISEASE (Ceratocystis ulmi) - CALIFORNIA - District> County= status on elm: Central Coast> Santa Clara= taken on European elm at Los Altos Hills, February 11, septic culture positive April 21; and Contra Costa= taken on Siberian elm at Walnut Creek, February 12, septic culture positive April 21. (T. Tidwell).

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - CALIFORNIA - New county record. First record of this nematode associated with beetle larva in North America. District> County= collection data from probably Enoclerus sp. (a clerid beetle): Central Coast> Monterey= larvae and adults heavy in beetle larva from wind fall limbs of Pinus radiata (Monterey pine) at Pacific Grove, April 6, 1980, by Q. Holdeman, determined by R. Hackney. Damaged beetle larva noted in wood sample April 10 by A. Balafoutis and tentatively determined by T. Seeno. Enoclerus and other clerid beetles known to prey on larvae of wood-boring insects. Wood from wind fall limbs under analysis. (C.S. Papp).

VIRGINIA - New State and county records for pinewood nematode. District> County= collection data from Pinus spp.: W> Pockbridge= from dead wood of Pinus strobus (white pine) at Lexington, March 1980, by M. Weaver, determined by J.A. Fox (G.L. Clement); and C> Henrico= from dead wood of Pinus sylvestris (Scotch pine) at Richmond, April 28, by W.H. Mitchell and R.E. Bailey, determined by D.J. Schweitzer. (D.J. Schweitzer).

INSECTS

SPRING CANKERWORM (Paleacrita vernata) - OKLAHOMA - District> County= infestations heavy: NE> Mayes and Washington= on shade trees, C> Payne= on elms, Creek= on oaks, and EC> Pittsburg= on elms and oaks. (D.C. Arnold).

BRONZE BIRCH BORER (*Agilus anxius*) - IDAHO - District> County= larval damage on birch April 28: SW> Canyon= destroyed young trees at Nampa and Caldwell. (C.R. Baird).

MAN AND ANIMALS

INSECTS

HORN FLY (*Haematobia irritans*) - OKLAHOMA - District> County= counts per head of cattle: WC> Washita, Beckham, and SW> Kiowa= 10-400, C> Payne= up to 300, NC> Major= 50-75, and SC> Atoka= averaged 30 and 400 in 2 herds. (D.C. Arnold).

A BLACKFLY (*Simulium vittatum*) - IDAHO - First adults of season. District> County= adults April 22: SC> Twin Falls= taken at Twin Falls. (R.L. Stoltz).

HOUSEHOLDS AND STRUCTURES

INSECTS

CARPENTER BEE (*Xylocopa virginica*) - INDIANA - First of season. District> County= status: SC> Harrison= adult reported. (D. Matthew).

A TERMITE (*Reticulitermes tibialis*) - NEVADA - District> County= status: W> Washoe= reproductives emerging in Reno and Sparks areas. (R. Lauderdale et al.).

BENEFICIAL ORGANISMS & THEIR ENEMIES

INSECTS

A SARCOPHAGID WASP (*Sarcophaga sinuata*) - INDIANA - Appearance much earlier than appearance of most, if not all, of its grasshopper hosts. District> County= male: SC> Harrison= 1 on April 29. (R.W. Meyer).

FEDERAL AND STATE PROGRAMS

DISEASES

A BARLEY STEM RUST (*Puccinia graminis* f.sp. *tritici*) trace on barley in nursery at Celaya, MEXICO, April 17-30. (A.P. Roelfs, D. Long).

OAT STEM RUST (*Puccinia graminis* f.sp. *avenae*) first collected on oats in United States, March 31 at nursery near Beeville, TEXAS, least amount observed in many years. Trace through northeastern MEXICO and El Bajio regions in commercial fields and on wild oats. Expected to be light in U.S. in 1980. Some late fields in south Texas may have some rust if inoculum arrives from Mexico. (A.P. Roelfs, D. Long).

No WHEAT STEM RUST (*Puccinia graminis* f.sp. *tritici*) on wheat in United States by April 25. Trace on susceptible cultivars in nurseries in MEXICO but none in commercial fields. Most severe (80%) at Celaya in El Bajio area on early planted susceptible material. South TEXAS is not major source of inoculum for U.S. wheat areas in 1980. (A.P. Roelfs, D. Long).

For other rusts on small grains see page 275.

INSECTS

CEREAL LEAF BEETLE (*Oulema melanopus*) - INDIANA - First of season. District> County= adult status: SC> Harrison= swept from alfalfa field April 22. (R.W. Meyer).

GRASSHOPPERS - OKLAHOMA - District> County= nymphs in pastures: SC> Bryan and EC> Pittsburg= heavy in some areas, and SW> Jackson, Harmon, Tillman, and Kiowa= 1-10 per 10 sweeps of alfalfa. (D.C. Arnold). WASHINGTON - District> County= MIGRATORY GRASSHOPPER (*Melanoplus sanguinipes*) on rangeland grasses April 24: C> Benton= first nymphs at Plymouth. (C. Emery, R. Caudill).

PINK BOLLWORM (*Pectinophora gossypiella*) - ARIZONA - District> County= males per pheromone trap per day: C> Maricopa= 0-17 and SW> Yuma= 0-9. (M. Kruse et al.).

HAWAII PEST REPORT

General Vegetables - DIAMONDBACK MOTH (*Plutella xylostella*) - Island= young larvae and adults on head cabbage [heading]: Kauai= infestation and foliar damage heavy on 0.1 ha at Wailua Homestead. (L.M. Nakahara).

CARMINE SPIDER MITE (*Tetranychus cinnabarinus*) - Island= status on Chinese peas: Kauai= moderate on 92.90 sq m in Hanapepe Valley. (D.T. Sugawa, L.M. Nakahara).

New State Record - A LYGAEID BUG (*Peritrechus saskatchewanensis*) - Island= collection data: Oahu= specimens collected by sweeping at Hickam Air Force Base, November 27, 1978, by J.W. Beardsley, determined by J.L. Herring. Five more specimens subsequently collected at same site. (J.W. Beardsley).

New Island Records - A HYDROPHILID BEETLE (*Tropisternus salsamentus*) - Island= collection data: Oahu= from reservoir at Pearl City, May 2, 1970, by S. Fukuda; and Hawaii= from reservoir at Waiakea, July 25, 1975, by J.W. Beardsley, both determined by P.J. Spangler. (J.W. Beardsley).

A EULOPHID WASP (*Encarsia variegata*) - Island= collection data from *Paraleyrodes naranjæ* (a whitefly): Molokai= on *Hibiscus tiliaceus* (sea hibiscus) at Kaunakakai, May 31, 1979, by L.M. Nakahara, determined by L.M. Nakahara, S.Y. Higa, and J.W. Beardsley. (L.M. Nakahara).

MARSH SLUG (*Agriolimax laevis*) - Island= collection data: Kauai= at residence on various vegetables in garden at Poipu and on State office grounds on decaying vegetation, ornamentals, and weeds at Lihue, February 23, 1979, by D.T. Sugawa and D. Melendez, determined by S.Y. Higa. (L.M. Nakahara).

CORRECTIONS

CPPR 4(35):697 and 701 - NATIVE ELM BARK BEETLE (*Hylurgopinus rufipes*) - NORTH DAKOTA - Foster and Wells Counties should not be new county records. Specimens collected from these counties were misidentified. (C.G. Scholl).

CPPR 5(10):204 and 207 - GYPSY MOTH (*Lymantria dispar*) - WISCONSIN - Make underscored changes. Trapping yielded 4 wild male adults outside treated area and 1 sterile marked male within area. (O.L. Lovett).

DETECTION

NEW STATE RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - VIRGINIA - Rockbridge County. (p. 284).

INSECTS

A LYGAEID BUG (Peritrechus saskatchewanensis) - HAWAII - Oahu Island. (p. 286).

NEW COUNTY AND ISLAND RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - CALIFORNIA - Monterey; VIRGINIA - Henrico. (p. 284).

INSECTS

CACTUS SCALE (Diaspis echinocacti) - FLORIDA - Holmes. (p. 284).

A EULOPHID WASP (Encarsia variegata) - HAWAII - Molokai. (p. 286).

A HYDROPHILID BEETLE (Tropisternus salsamentus) - HAWAII - Oahu and Hawaii. (p. 286).

SOUTHERN CHINCH BUG (Blissus insularis) - CALIFORNIA - Humboldt. (p. 277).

SLUGS AND SNAILS

MARSH SLUG (Agriolimax laevis) - HAWAII - Kauai. (p. 286).

A SURULINID SNAIL (Rumina decollata) - CALIFORNIA - District> County= collection data (no host given): San Joaquin Valley> Fresno= from Fresno, April 7, 1980, by A. Aoki, determined by T. Kono. (T. Kono).

WEEDS

A SPURGE (Euphorbia oblongata) - CALIFORNIA - District> County= collection data from garden: Sacramento Valley> Yuba= at residence at Davis, May 1, 1980, by P. Crane, determined by D. Barbe. (D. Barbe).

OTHER NEW RECORDS

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - CALIFORNIA - First record of association with probably Enoclerus sp. (a Clerid beetle) larva in North America. (p. 284).

RUSSIAN Knapweed (Centaurea repens) - CALIFORNIA - New township record. District> County= collection data: Sacramento Valley> Glenn= taken about 22 km southwest of Willows, April 17 1980, by E. Simpson, determined by D. Barbe. (D. Barbe).

LIGHT TRAP COLLECTIONS

	Temperature °C	Precip- itation mm	Time of Day	Type of Trap	Agrotis luglion (black cutworm)	Salicicampa actea (salicid cutworm)	Euxoa auxillaris (army cutworm)	Protonotaria diffusa (wheat head armyworm)	Feltia subrepandans (granulate cutworm)	Heliopsis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laspeyresia pomonella (codling moth)	Lorostege comitella (alfalfa cutworm)	Lorostege pallida (garden webworm)	Lorostege sticticalis (beet webworm)	Manduca quinquemaculata (tomato hornworm)	Manduca sexta (tobacco silk)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (cabbage looper)	Triphaena (cabbage looper)	Group
ARIZONA Mesa 4/21-27					BL 4						1							17	6	88	22	6			
CALIFORNIA Bellota 4/27	16-30				BL 9													6	57	1					
Manteca 4/28	12-24				BL 1													2	17	1					
INDIANA (County) Tippecanoe 4/30					BL 0						0							0			0				
KENTUCKY Elkton 4/22-29					BL 0																				
Lexington 4/25-30					BL 0																				
MARYLAND (County) Caroline 4/25-26					BL 1													2	12						
VIRGINIA Painter 4/20-26					BL 5																24				

Pest Interceptions of Quarantine Significance at Ports of Entry

Plant Importation and Technical Support Staff
Plant Protection and Quarantine Programs, USDA

	Life Stage	Host	Probable Origin	Port of Entry	Officer	Destination
<u>Puccinia pelargonii-zonalis</u> Doidge pelargonium rust Det. D. Weast	uredial	on leaves of Pelargonium plants from baggage	Mexico	El Paso	Y. Medrano	TX
<u>Anastrepha ludens</u> (Loew) Mexican fruit fly Det. M.W. Newman	larval	in sweet oranges from baggage	Mexico	Hidalgo	M. Newman	TX
<u>Aulacaspis tubercularis</u> Newstead a diaspidid scale Det. R. Taylor	adult	on mangoes from baggage	Kenya	Chicago	B. Brennecke	IL
<u>Cryptoblabes gnidiella</u> (Milliere) Christmas berry webworm Det. R. Taylor	larval	in sweet oranges from baggage	Greece	Chicago	W. Stratton	IL
<u>Mallodon downesi</u> Hope a cerambycid beetle Det. D.M. Anderson	larval	in wood crates with rubber	Ghana	New Orleans	C. McIntyre	OH
<u>Opuntiaspis philococcus</u> (Cockereil) a diaspidid scale Det. D. Riley	adult	on stems of Lemnaireocereus plants from cargo	Mexico	Brownsville	J. VanValkenburgh	TX
<u>Pityogenes chalcographus</u> (Linnaeus) a scolytid beetle Det. D.M. Anderson	adult	in wood pallets with automobile parts	West Germany	Savannah	S. Slaughter	GA
<u>Achatina achatina</u> (Linnaeus) an achatinid snail Det. D.M. Odermatt	adult	in baggage	Ghana	Kennedy Airport	J. Nemazi	DC

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY

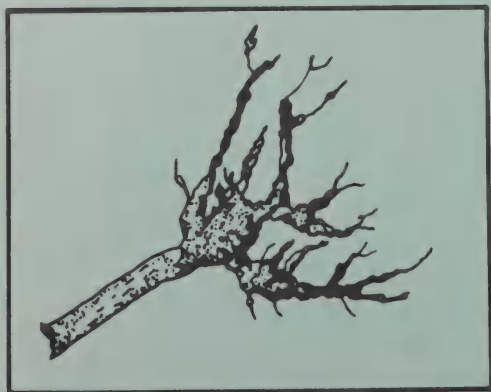
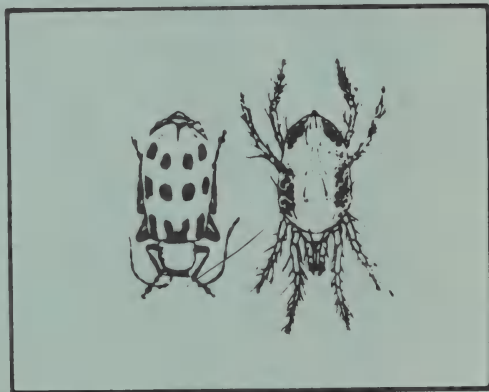


1023142886

34/033NIDMDHYNN
C H HOFFMANN
6906 40TH AVE
HYATTSVILLE

R1 CPR-0001

MD 20782



258823
.4153

(S)



United States
Department of
Agriculture

**Animal and Plant
Health Inspection
Service**

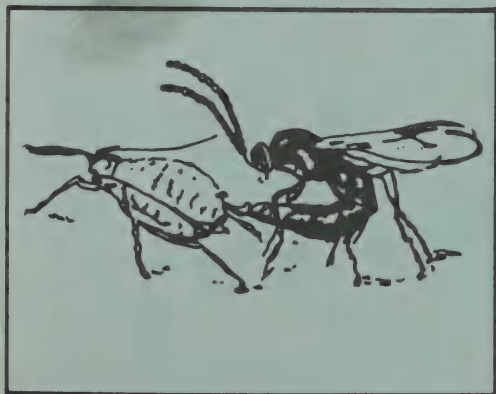
Plant Protection
and Quarantine

Cooperative Plant Pest Report

May 16, 1980

Vol. 5

No. 16



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

BLACK CUTWORM damage severe on corn in midwestern area of Kentucky. (p. 294).

ALFALFA WEEVIL larvae 10+ per sweep or close to 5 per stem in parts of southern Nevada and south-central and southeastern Kansas. Larvae and damage heavy in north-central, northeastern, east-central, and central parts of Oklahoma. Heavier in northeastern Arkansas than in last 3 years. (p. 298-300).

BLUE ALFALFA APHID damaged alfalfa in parts of central, northeastern, and north-central Oklahoma. (p. 301).

Young GRASSHOPPER nymphs economic on range in northeastern New Mexico. (p. 310-311).

Detection

For new county records see page 311.

Some First Occurrences of the Season

CHINCH BUG eggs in Kansas. MEXICAN BEAN BEETLE and STRIPED CUCUMBER BEETLE on alfalfa in Indiana. COLORADO POTATO BEETLE in Oklahoma. IMPORTED CAGGAGEWORM adults in Idaho. YELLOWSTRIPED ARMYWORM larva on beets in Oklahoma. CODLING MOTH males in Washington, Colorado, Kansas, and Arkansas. ORIENTAL FRUIT MOTH in Kansas and New York. REDBANDED LEAFROLLER in Kansas. PEAR PSYLLA nymphs in New York. EUROPEAN RED MITE on apple in New York. BAGWORM in Oklahoma. ELM LEAF BEETLE and ELM CALLIGRAPHA in Oklahoma. AMERICAN DOG TICK in Oklahoma and Minnesota.

Reports in this issue are for the week ending May 9 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		General Vegetables	
Insects.....	293	Insects.....	303
Small Grains		Deciduous Fruits and Nuts	
Diseases.....	294	Diseases.....	304
Insects.....	295	Insects.....	304
Turf, Pastures, Rangeland		Small Fruits	
Insects.....	298	Diseases.....	306
Forage Legumes		Ornamentals	
Insects.....	298	Insects.....	307
Cotton		Forest and Shade Trees	
Insects.....	302	Diseases.....	307
Potatoes, Tomatoes, Peppers		Insects.....	307
Insects.....	303	Man and Animals	
		Insects.....	308
Cole Crops			
Insects.....	303		
Beneficial Organisms and Their Enemies			
Diseases.....	309		
Insects.....	309		
Federal and State Programs.....	309		
Insects.....	309		
Detection.....	311		
Light Trap Collections.....	312		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - ILLINOIS - District> County= overwintering larval survival, based on 25 forms, May 2: NW> Whiteside= about 68% (J.H. Paullus) and WSW> Calhoun= about 80%, data limited. (A.M. Agnello).

ARMYWORM (*Pseudaletia unipuncta*) - NEW YORK - District> County= adults per pheromone trap: S> Tompkins= 2 at Freeville (H.R. Willson), also reported from Long Island (M. Semel).

FALL ARMYWORM (*Spodoptera frugiperda*) - TEXAS - District> County= counts in corn whorls per 5 plants April 29: SC> Bee= 1. (J.A. Jackman).

CORN EARWORM (*Heliothis zea*) - TEXAS - District> County= counts in corn whorls per 5 plants April 29: SC> Bee= 1. (J.A. Jackman).

BLACK CUTWORM (*Agrotis ipsilon*) - KANSAS - Pheromone trap counts:

<u>District> County</u>	<u>Number of males</u>		<u>Number of night(s)</u>	<u>City</u>
	<u>Trap 1</u>	<u>Trap 2</u>		
April 19-25 (K.O. Bell, Jr.):				
NE> Jefferson	2	2	3	Valley Falls
NE> Jefferson	7	2	2	Valley Falls
NE> Jefferson	1	2	2	Valley Falls
NE> Pottawatomie	11	9	4	Wamego
NE> Pottawatomie	9	10	2	Wamego
NE> Pottawatomie	1	1	1	Wamego
EC> Shawnee	2	5	2	Rossville
EC> Shawnee	4	4	3	Rossville
EC> Shawnee	0	1	2	Rossville
EC> Douglas	3	11	7	Baldwin
SE> Allen	3	0	7	Humboldt
SC> Harvey	2	9	7	Newton
SW> Finney	13	7	6	Garden City

April 26 to May 9 (B.D. Hilbert et al.):

NE> Jefferson	6	0	8	Valley Falls
EC> Douglas	0	4	10	Baldwin
EC> Douglas	0	2	4	Baldwin
SE> Allen	4	4	6	Humboldt
SC> Harvey	0	0	7	Newton
SW> Finney	18	5	7	Garden City

Kansas - District> County= black cutworm counts on corn [host stage if given] in number of fields (f): NE> Riley, Pottawatomie, and EC> Shawnee= none [1-3 leaf] in 6f (G.E. Lippert), SE> Montgomery, Labette, EC> Miami, Anderson, and Johnson= none in 8 of 9f and trace [3-4 leaf] in 1f (S.C. White), and SE area> larvae, up to 13 mm long, trace in seedling corn (G.E. Lippert).

ILLINOIS - Black cutworm in pheromone traps (with number of traps used)
(K. Steffey):

District	Week of				
	March 23	March 30	April 6	April 13	April 20
NW	0(2)	2(3)	9(4)	2(3)	9(4)
NE	-	12(4)	5(7)	0(6)	3(3)
W	15(8)	29(9)	102(9)	118(12)	107(13)
C	0(2)	9(6)	20(9)	26(10)	11(8)
E	2(6)	5(8)	23(10)	27(10)	27(10)
WSW	30(6)	50(14)	110(16)	65(16)	114(15)
ESE	18(10)	11(15)	62(17)	42(17)	114(16)
SW	16(6)	98(8)	132(10)	96(8)	105(8)
SE	30(5)	29(10)	115(11)	53(10)	117(9)

KENTUCKY - District> County= black cutworm larvae on early planted corn: Mid-western> Todd= damage severe, at least 6 fields treated. (P.E. Sloderbeck, D. Tempelman); pheromone trap counts: Bluegrass> Fayette= 0 in 3 traps at Lexington and Midwestern> Henderson= 0 in 4 traps at Henderson (P.E. Sloderbeck). NEW YORK - District> County= pheromone trap counts: W> Ontario at Geneva, and S> Tompkins at Freeville and Ithaca= 15-25, activity increased (H.R. Willson), also reported from Long Island (M. Semel) and Capital District (J. Cuniglio).

CORN FLEA BEETLE (*Chaetocnema pulicaria*) - KANSAS - District> County= counts per corn [host stage] plant: NE> Riley, Pottawatomie, and EC> Shawnee= averaged trace to 3 [1-3 leaf] in 6 fields (K.O. Bell, Jr.), and SC> Sedgwick= trace [1 leaf] (G.A. Salsbury). MISSOURI - District> County= counts per seedling corn plant week ending May 3: W> Bates and Vernon= light to moderate, 0-12, averaged 2.5, 3.0, and 5.1 in 3 fields, leaves damaged in all fields, controls to be applied. (R.E. Munson). KENTUCKY - District> County= adults on corn: Mid-western> Christian, Daviess, Union, Todd, and C> Hart= infested fields; Mid-western> Daviess= averaged less than 1 per plant with 60% of plants showing light feeding damage in 2 fields (48.6 ha) of seedling corn [5 cm tall]. (P.E. Sloderbeck et al.).

A SCARAB (*Phyllophaga implicita*) - ILLINOIS - Records dating back to 1971 indicate 3-year life cycle, outbreak expected this spring. District> County= larvae on corn May 2: WSW> Macoupin= found within 15 cm of surface in fields. (D. Kuhlman).

CHINCH BUG (*Blissus leucopterus leucopterus*) - KANSAS - District> County= counts on corn [host stage]: SE> Labette= averaged 1 [4 leaf] per plant, EC> Anderson= trace [2 leaf], and Miami, Johnson, SE> Labette, and Montgomery= none [3-4 leaf] in 7 fields. (S.C. White).

SMALL GRAINS

DISEASES

BARLEY AND WHEAT LEAF RUSTS (*Puccinia* spp.) - PENNSYLVANIA - District> County= prevalence/severity [host stage]: SE> Lancaster= trace/trace on 'Barsoy' barley [leaf-sheaths strongly erected] April 18; and SC> York= trace on 'Hart' wheat and 'Barsoy' barley [unknown] April 24. (D. Bingaman).

INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - OKLAHOMA - District> County= status on wheat: NC> Grant, southwestern Garfield, and southeastern Noble= small larvae 1-3 per 0.3 row m in few fields; Kay= 0.1-1 per 0.3 row m; and Panhandle> Texas, C> Payne, SW> Jackson, and EC> Pittsburg= adults reported, no larvae. (D.C. Arnold).

KANSAS - adults in blacklight traps increased, particularly in southeastern area. District> County= larvae in lodged wheat [38 cm tall] week ending April 25: SE> Wilson= none in 1 field. Currently: Larvae, up to 4.76 cm long, in wheat [second node visible to all ears out of sheath]: SE> Wilson, Labette, and Cherokee= trace in some fields. (S.C. White, K.O. Bell, Jr.). Counts on wheat (K.O. Bell, Jr.):

District> County	Counts per 0.3 row m	Host stage	Number of field(s)
SE> Montgomery	0	first ears just visible to leaf sheaths lengthen	3
SE> Labette	0 to trace	ligule of last leaf just visible	3
SE> Cherokee	0.1	ligule of last leaf just visible to all ears out of sheaths	2
SE> Wilson	trace	ligule of last leaf just visible	1
SC> Johnson	0	second node visible	1
NE> Riley	0	second node visible	1
NE> Pottawatomie	0	ligule of last leaf just visible	1
EC> Shawnee	0	second node visible	1
C> Saline	0	-	1
C> Lincoln	0	-	2
NC> Ottawa	0	-	3
NC> Cloud	0	-	3

NEBRASKA - Area> armyworm adult status: Eastern one-third of State> increased in light traps. (Jarvi et al.).

ARMY CUTWORM (*Euxoa auxiliaris*) - OKLAHOMA - District> County= status on wheat: NC> Kay= larvae almost gone, and SC> Stephens, SW> Jackson, and Panhandle> Texas= adults sometimes heavy. (D.C. Arnold).

GREENBUG (*Schizaphis graminum*) - TEXAS - Counts per 0.3 row m of small grains April 29 to May 2 (E.P. Boring, III):

District> County	Counts
Cross Timbers> Archer	1.6-13
Southern Low Plains> Baylor	1.6-13
Northern Low Plains> Foard	0-10
Northern Low Plains> Wilbarger	0-7
Northern Low Plains> Wichita	0-7
Trans-Pecos> El Paso	0-5 in most fields
Trans-Pecos> El Paso	100 in few fields

OKLAHOMA - District> County= greenbugs per 0.3 row m of wheat: NC> Kay, Grant, Garfield, and Noble= 10-450, decreased rapidly, parasitism averaged about 50% in many fields; Major= up to 2,500 in 1 edge of headed field in northeastern area; and SW> Jackson, Kiowa, and Harmon= 0-10 in fields. (D.C. Arnold).

KANSAS - Greenbugs still light in most areas surveyed. Heavy in mostly some central and north-central counties. District> County= counts per 0.3 row m of wheat: NC> Clay and Cloud and C> Saline= often ranged 25-33; NE> Riley= 50-100 on May 1; about 200-2,000+ with 875 in 1 field (probably isolated case) on May 5. Beneficials increased rapidly by May 5 and had possibly checked increase in spots, plant damage serious in spots where plants shortest. (T.W. Mize, K.O. Bell, Jr.).

Kansas - Greenbug on wheat (K.O. Bell, Jr.):

District> County	Counts per 0.3 row m	Host stage	Number of field(s)
SW> Haskell	trace	last leaf just visible	1
SW> Seward	trace	second node visible	1
SW> Kearny	0	second node visible	1
WC> Scott	trace	second node visible	1
NW> Thomas	0	second node visible	2
NW> Norton	0	second node visible	1
NW> Decatur	0 to trace	second node visible	2
NW> Rawlins	0	second node visible	2
SE> Butler	18	ligule of last leaf just visible	1
SE> Montgomery	0-2	first ears just visible to leaf sheaths lengthen	3
SE> Labette	0-1	ligule of last leaf just visible	3
SE> Cherokee	trace to 2	ligule of last leaf just visible to all ears out of sheaths	2
SE> Wilson	0	ligule of last leaf just visible	1
SC> Sumner	13	boot	1
SC> Kiowa	3	last leaf just visible	1
EC> Johnson	trace	second node visible	1
EC> Shawnee	0	second node visible	1
NE> Riley	875	second node visible	1
NE> Pottawatomie	4	ligule of last leaf just visible	1
C> Saline	30	-	1
C> Lincoln	5	-	2
NC> Ottawa	5-15	-	3
NC> Cloud	25-33	-	3
NC> Clay	3-32	-	2

MISSOURI - District> County= greenbugs per 5 sweeps of small grains week ending May 3: W> Bates and Vernon= light, averaged 2, in 4 fields. (R.E. Munson).

ENGLISH GRAIN APHID (Macrosiphum avenae) - KANSAS - Counts on wheat (K.O. Bell, Jr.):

District> County	Counts per 0.3 row m	Host stage	Number of field(s)
SE> Butler	18	ligule of last leaf just visible	1
SE> Wilson	trace	ligule of last leaf just visible	1
SC> Sumner	3	boot	1
SC> Kiowa	0	last leaf just visible	1
EC> Shawnee	2	second node visible	1
NE> Riley	2	second node visible	1
NE> Pottawatomie	1	ligule of last leaf just visible	1

AN APHID (Rhopalosiphum padi) - TEXAS - District> County= counts per 0.3 row m of small grains April 29: Northern Low Plains> Wichita= 0-0.2. (E.P. Boring, III). OKLAHOMA - District> County= status on wheat: NC> Grant, Kay, Garfield, and Noble= generally light, averaged 8,000 per 0.3 row m in field of 'Monarch' wheat near Hunter in last county. (D.C. Arnold).

KANSAS - Rhopalosiphum padi counts on wheat (K.O. Bell, Jr.):

District> County	Counts per 0.3 row m	Host stage	Number of field(s)
SE> Butler	27	ligule of last leaf just visible	1
SE> Montgomery	0	first ears just visible to leaf sheaths lengthen	3
SE> Labette	0 to trace	ligule of last leaf just visible	3
SE> Cherokee	trace to 1	ligule of last leaf just visible to all ears out of sheaths	2
SE> Wilson	0	ligule of last leaf just visible	1
SC> Sumner	22	boot	1
SC> Kiowa	0	last leaf just visible	1
EC> Johnson	0	second node visible	1
NE> Riley	150	second node visible	1
NE> Pottawatomie	0	ligule of last leaf just visible	1
C> Saline	6	-	1
C> Lincoln	0	-	2
NC> Ottawa	0-3	-	3
NC> Cloud	3-5	-	3
NC> Clay	0-5	-	2

CHINCH BUG (Blissus leucopterus leucopterus) - KANSAS - First eggs of season. District> County= status on oats [last leaf just visible]: SE> Montgomery= eggs noted, adults averaged 1.6 per 0.3 row m. (S.C. White). Overwintered adults on wheat (K.O. Bell, Jr.):

District> County	Counts per 0.3 row m	Host stage	Number of field(s)
SE> Butler	trace	ligule of last leaf just visible	1
SE> Montgomery	0	first ears just visible to leaf sheaths lengthen	3
SE> Labette	0	ligule of last leaf just visible	3
SE> Cherokee	0	ligule of last leaf just visible to all ears out of sheaths	2
SE> Wilson	0	ligule of last leaf just visible	1
SC> Sumner	0	boot	1
SC> Kiowa	0	last leaf just visible	1
EC> Johnson	0	second node visible	1
EC> Shawnee	0	second node visible	1
NE> Riley	6	second node visible	1
NE> Pottawatomie	0	ligule of last leaf just visible	1

NEBRASKA - District> County= chinch bug adults per 0.3 row m of wheat: SE> Thayer= averaged 500+ in 1 field and less than 10 in second field fewer than 8 km away. Mating noted but no egg laying. (Peters).

WINTER GRAIN MITE (*Penthaleus major*) - TEXAS - District> County= counts per 0.3 row m of small grains April 29: Cross Timbers> Archer and Southern Low Plains> Baylor= 0-175. (E.P. Boring, III).

BROWN WHEAT MITE (*Petrobia latens*) - OKLAHOMA - District> County= counts per 0.3 row m of wheat: SW> Jackson, Harmon, and Kiowa= light, 0-5, still present. (D.C. Arnold).

TURF, PASTURES, RANGELAND

INSECTS

GREENBUG (*Schizaphis graminum*) - MISSOURI - District> County= status on orchard-grass week ending May 3: SC> Howell= heavy, plants showing yellowing and browning symptoms, controls applied. (R.W. Munson).

FORAGE LEGUMES

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - NEVADA - District> County= counts per sweep of hay alfalfa: S> Lincoln= averaged 100 in Pahrnagat Valley (T. Smigel); larvae and adults per sweep (average) of seed alfalfa: W> Pershing= 0.35-40 (7.59) and 0-1.4 (0.41) at Lovelock. (M. Spencer, L. Stitt). NEW MEXICO - District> County= larvae and adults per 25 sweeps of alfalfa in number of fields (f): SE> Otero= 100+ and 4 in 11f in Tularosa area, lighter in treated fields (G. Nielsen); NW> Bernalillo= 50-100 and 0-2 in 4f in southern valley of Albuquerque, damage light to moderate to terminal growth (C. Heninger). TEXAS - New county record. District> County= collection data: SC> Bexar= 2 adults collected from *Cynodon dactylon* (bermudagrass) cv. Coastal at San Antonio, November 29, 1978, and 1 adult collected from *Sorghum halepense* (johnsongrass) at Windcrest, October 31. Both collected by L. Betkman and determined by C.A. Triplehorn. (R. Gaspari). Counts on alfalfa April 23 and May 2 (M.E. Rice):

District> County	Counts
Northern Low Plains> Dickens	larvae 50-116 per 25 sweeps
Northern Low Plains> Dickens	adults 0-1 per 25 sweeps
Trans-Pecos> El Paso	adults less than 1 per sweep
Trans-Pecos> Hudspeth at Acala	larvae 12 per sweep
Lower El Paso Valley	larvae 1-3 per sweep

OKLAHOMA - District> County= alfalfa weevil on alfalfa: NC> Kay, Noble, NE> Tulsa, Washington, Osage, Wagoner, EC> Muskogee, and C> Creek= newly emerged adults 1-10 per 10 sweeps of untreated alfalfa, larvae and damage heavy; Payne= newly emerged adults averaged 6 per 10 sweeps in 1 field; NC> Grant, Garfield, Noble, and Kay= larvae 3-4 per terminal; percent terminal infestations in number of fields (f): Panhandle> Harper= averaged 85% and 90% in 2f, Beaver= 90% in 1f, Texas= 35%, 50%, 60%, and 60% in 4f, and SW> Jackson, Kiowa, Tillman, and Harmon= 2-28% (averaged 13%) in 43f, treated. (D.C. Arnold).

KANSAS - District> County= alfalfa weevil larval status on alfalfa [20-32 cm tall] week ending April 25: SE> Montgomery= economic in 1 field, Chautauqua= 1 field cut early (S.C. White), Wilson and Elk= threatening in some fields (S.C. White, K.O. Bell, Jr.), averaged up to 4.5 per stem with few scattered terminals beginning to show severe lacing in 1 field in latter county, and Wilson= some significant terminal damage, adults averaged up to 100 per 100 sweeps in

field near Fredonia (K.O. Bell, Jr.). Alfalfa weevil currently: Populations damaging in scattered fields in southeastern and south-central areas, increased in western area, and pupation well underway in southeastern area. District> County= status on alfalfa: C> Saline= terminal lacing serious in isolated field, and NW> Norton= surprisingly heavy. Counts on alfalfa (S.C. White et al.):

District> County	Main instars	Larvae per sweep	Larval average per stem	Adults per 100 sweeps	Host height (cm)	Tips damaged (%)
SE> Montgomery	-	20	-	-	46	100
SE> Neosho	-	70	-	-	56	100
SE> Elk	-	8	-	-	81	-
SE> Butler	3rd, 4th	-	0.6	-	46	75
EC> Miami	-	19	-	20	25	-
EC> Franklin	-	23	-	4	28	-
SC> Edwards	1st, 2nd	7	1.2	150	30	60
SC> Comanche	1st, 2nd	172	3.0	190	41	75
SC> Sumner	1st, 2nd	-	1.8	200	46	100
SW> Finney	1st, 2nd	-	0.8	41	30	90
SW> Haskell	-	-	-	211	30	30
SW> Seward	-	-	-	104	30	20
SW> Kearny	-	-	-	163	30	90
WC> Scott	-	-	-	11	25	10
NW> Thomas	-	-	-	27	28	20
NW> Norton	-	-	-	4	30	50
C> Saline	-	-	-	-	46	100
C> Saline	-	-	-	-	56	20
C> Saline	-	-	-	48	46	20
C> Lincoln	-	-	-	48	51	45
C> Lincoln	-	-	-	42	56	10
NC> Clay	-	-	-	10	56	50
NC> Cloud	-	-	-	-	51	15
NC> Cloud	-	-	-	-	51	5
NC> Ottawa	-	-	-	8	58	20

ARKANSAS - Area> alfalfa weevil status on alfalfa: N> infestations, especially in NW district> Washington County, seem heavier than during last 3 seasons. Treatment will be necessary in many fields. (F.D. Miner, B.F. Jones). MISSOURI - District> County= larvae per forage legume plant week ending May 3: W> Bates and Vernon= 0-5, light to moderate, on 5-18% of terminals, none of 4 fields reached control level. (R.E. Munson). INDIANA - Area> larval (mostly 1st and 2nd instars) infestations on alfalfa: WC> 0-92% (averaged 52%), and C> and EC> 25-33%. Feeding generally light due to good host growth and relatively light alfalfa weevil populations and small larvae. Only 2 of 18 fields in immediate danger. Heavier infestations generally south of Indianapolis. (R.W. Meyer). Heat unit accumulations (base 8.9°C) January 1 to May 9 (C. Geiger):

District> County	Heat units	City
NW> La Porte	136	Wanatah
NC> St. Joseph	134	South Bend
NE> Allen	103	Fort Wayne
WC> Tippecanoe	113	West Lafayette
C> Marion	157	Indianapolis
SW> Vanderburgh	217	Evansville

KENTUCKY - Area> alfalfa weevil larvae on alfalfa: Statewide> damage continued, and S> some alfalfa nearly ready for harvest. (P.E. Sloderbeck). WEST VIRGINIA - District> County= status: E> Randolph= mostly 1st instar larvae infested 3 tips per 50 in 20% alfalfa [18 cm tall] and 80% timothy stand April 29; Currently: NW> Ohio= larvae 12 per 30 stems and tip infestation averaged 50% on alfalfa [35.3 cm tall]. (J.D. Hacker). NEW YORK - Area> status: Statewide> egg laying activity noted and Southern Hudson Valley> hatch of few spring-laid eggs. (Helgesen).

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - INDIANA - First of season. District> County= status on alfalfa May 3: SE> Franklin and SC> Jackson= swept. (R. Abrams).

STRIPED CUCUMBER BEETLE (*Acalymma vittata*) - INDIANA - First adults of season. Area> adults on alfalfa May 5: WC> trace. (R.W. Meyer).

VARIEGATED CUTWORM (*Peridroma saucia*) - OKLAHOMA - District> County= counts per 10 sweeps of alfalfa: NE> Tulsa and C> Payne= light, fewer than 1. (D.C. Arnold).

ARMY CUTWORM (*Euxoa auxiliaris*) - COLORADO - District> County= larvae per alfalfa plant: EC> Washington and Yuma= 6-8 in several fields; controls applied. (S.L. Pilcher).

BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) - NEVADA - District> County= this species and PEA APHID (*Acyrtosiphon pisum*) per sweep of seed alfalfa: W> Pershing= 0.5-17.5 (averaged 4.86) at Lovelock, and Humboldt= 0.14-0.45 at Jungo (M. Spencer, L. Stitt). This species mostly and pea aphid with occasional SPOTTED ALFALFA APHID (*Therioaphis maculata*) on hay alfalfa: W> Lyon= averaged 5 at Yerington (L. Stitt), Washoe= averaged 600-1,100 in experimental field plots at Reno (J. Berg), S> Lincoln= 25-250 in Pahrnagat Valley and first 2 species averaged 10 in Penoyer Valley (T. Smigel), Clark= 8-20 in Moapa Valley, and this species and spotted alfalfa aphid with occasional pea aphid averaged 30 at Bunkerville (S. Steffen). OKLAHOMA - New county record. District> County= collection data from alfalfa: SC> Jefferson= at Waurika, April 15, 1980, collected and determined by R.C. Berberet. (D.C. Arnold).

KANSAS - Blue alfalfa aphid not a problem in most alfalfa [20-32 cm tall] checked in southeastern area. District> County= status on alfalfa week ending April 25: SE> Elk and Montgomery= heavy, severely stunted spot about 4.6 m in diameter in former county; this species and PEA APHID (*Acyrtosiphon pisum*) trace in normal appearing alfalfa [26 cm tall] in same field (S.C. White); and Wilson and EC> Lyon= blue alfalfa aphid light (K.O. Bell, Jr.); current counts per leaf on alfalfa: SE> Butler= averaged 150-350 in noticeably stunted spots, spots not noticeable May 2. Alfalfa [25 cm tall] in blue alfalfa aphid stunted spots but [46 cm tall] over most of field. (G.A. Salisbury). Counts on alfalfa (S.C. White et al.):

District> County	Number per stem	Host height (cm)
SC> Edwards	trace	30
SC> Comanche	trace	41
SE> Butler	150-350 in spots	46
SW> Finney	0	30
SW> Haskell	0	30

<u>District> County</u>	<u>Number per stem</u>	<u>Host height (cm)</u>
SW> Seward	0	30
SW> Kearny	0	30
WC> Scott	0	25
NW> Thomas	0	28
NW> Norton	0	30
C> Saline	0	46
C> Saline	0	56
C> Saline	0	46
C> Lincoln	0	51
C> Lincoln	0	56
NC> Clay	0	56
NC> Cloud	0	51
NC> Cloud	0	51
NC> Ottawa	0	58

PEA APHID (*Acyrtosiphon pisum*) - NEW MEXICO - District> County= nymphs and adults per 25 sweeps of alfalfa: NW> Bernalillo= 1-5 in 4 fields in southern valley of Albuquerque. (C. Heninger). OKLAHOMA - District> County= status of this species and BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) in alfalfa: C> Payne= averaged 6,000 and 3,000 per 10 sweeps in 2 untreated fields, damage heavy in both fields in spots where blue alfalfa aphid 90+%; NE> Tulsa and NC> Kay= averaged 5,000 and 6,000 per 10 sweeps, respectively, severe stunting by blue alfalfa aphid in 1 field each; NC> Kay, Noble, Grant, and Garfield= 60-70 per stem in some areas, mostly pea aphid; Panhandle> Beaver= averaged 50 per 10 sweeps, mostly pea aphid; and SW> Jackson, Kiowa, Tillman, and Harmon= 1-15 per stem in treated fields, mostly pea aphid. (D.C. Arnold).

KANSAS - Pea aphid on alfalfa (S.C. White et al.):

<u>District> County</u>	<u>Number per stem</u>	<u>Host height (cm)</u>
SC> Edwards	trace	30
SW> Finney	5	30
SW> Haskell	15	30
SW> Seward	5	30
SW> Kearny	trace	30
WC> Scott	trace	25
NW> Thomas	trace	28
NW> Norton	5	30
C> Saline	18	46
C> Saline	2	56
C> Lincoln	3	51
C> Lincoln	2	56
NC> Clay	3	56
NC> Cloud	2	51
NC> Cloud	3	51
NC> Ottawa	10	58

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - District> County= nymphs and adults per 100 sweeps of alfalfa: SW> Yuma= 600-1,200. (L. Lee et al.). NEBRASKA - District> County= counts per sweep of alfalfa: E> Lancaster= averaged 45 in 1 field, no damage. (Karner).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - District> County= adults per 100 sweeps of alfalfa: C> Maricopa= 94-120. (L. Lee et al.).

LYGUS BUGS (*Lygus* spp.) - NEVADA - District> County= 1st to 3rd instar nymphs, 4th to 5th instar nymphs, and adults per sweep (average) of seed alfalfa: W> Pershing= 0.03-1.9 (0.47), 0-0.07 (0.01), and 0-0.23 (0.07) at Lovelock, and Humboldt= not given, not given, and 0.02-0.23 (not given) at Junco. (M. Spencer, L. Stitt).

BROWN WHEAT MITE (*Petrobia latens*) - NEVADA - District> County= heavy on seed alfalfa foliage: W> Humboldt= in corner of field at Junco. (L. Stitt). NEW MEXICO - District> County= infestations in alfalfa: NW> southern Bernalillo= light in fields. (C. Heninger).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - TEXAS - Increased on cotton in Lower Rio Grande Valley and Lower gulf coast April 28 to May 2 (J. Cocke et al.).

District> County	Counts
Lower Rio Grande Valley	0-1.25 per trap per week
Lower Valley> Cameron	adults 0-6 per 100 plants
Lower Valley> Cameron	punctured squares 0-50 per 100 plants
Lower Valley> Hidalgo	adults 0-1 per 100 plants
Lower Valley> Hidalgo	punctured squares 0-5 per 100 plants
Lower Valley> Willacy	adults 0-1 per 100 plants
Lower Valley> Willacy	punctured squares 0-1 per 100 plants
Lower Gulf Coast	0-1 per 100 plants
Upper Coast> Wharton and Fort Bend	adults very heavy in traps
Upper Coast> Fort Bend	0.4-156.3 in 4 traps per week
Upper Coast> Brazoria	100+ per trap per week

SOUTH CAROLINA - Boll weevil in pheromone traps April 28 to May 6 (D.R. Johnson):

District> County	Range	Average	Number of traps
C> Calhoun	0-300	46.4	37
E> Darlington	0-104	20.3	46
E> Dillon	0-53	14.2	121
E> Florence	2-21	9.9	10
E> Marlboro	0-115	20.3	241
E> Marion	1-83	37.14	7

BOLLWORMS (*Heliothis* spp.) - TEXAS - BOLLWORM (*Heliothis zea*) and TOBACCO BUDWORM (*Heliothis virescens*) light on cotton in Lower Rio Grande Valley and lower gulf coast April 28 to May 2. District> County= Lower Valley> Hidalgo= tobacco budworm 14 per trap per night and bollworm 0 per trap per 3 weeks at Weslaco (J. Cocke et al.).

District> County	Counts per 100 plants		
	Eggs	Larvae	Damaged squares
Lower Valley> Cameron	0-10	0-8	0-8
Lower Valley> Hidalgo	0	0-2	0-2
Lower Valley> Willacy	0-1	0-1	0-1
Lower Gulf Coast	3-7	3-5	-

SEEDCORN MAGGOT (*Hylemya platura*) - NEW MEXICO - District> County= status on seedling cotton: SW> Luna= infestations scattered at Deming; several fields needed replanting. (J. Durkin).

COTTON FLEAHOPPER (*Pseudatomoscelis seriatus*) - TEXAS - Some migration to cotton in Lower Rio Grande Valley. Counts per 100 cotton plants April 29 to May 2 (J. Cocke et al.):

District> County	Counts
Lower Valley> Cameron	0-14
Lower Valley> Hidalgo	0-30
Lower Valley> Willacy	0-48
Lower Gulf Coast	3-20

POTATOES, TOMATOES, PEPPERS

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - MAINE - County= status on potatoes: Aroostook= overwintering survival good in 25% of stems on ground surface in several fields in Houlton area, other infestations decreased due to fewer exposed stems and possibly treatment effects in 1979. (A. Gall).

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - OKLAHOMA - First of season. District> County= status: C> Lincoln= active, on potatoes April 18; currently: Eggs, larvae, and adults on potatoes; and NE> Tulsa= eggs and adults 1 per 0.3 row m on eggplants in Bixby area. (D.C. Arnold). NEW YORK - Area> overwintered adults May 2: Long Island> emergence heavy. (M. Semel).

COLE CROPS

INSECTS

IMPORTED CABBAGEWORM (*Pieris rapae*) - IDAHO - First adults of season. District> County= adults: N> Latah= at Moscow May 2 and at Troy May 3. (W.F. Barr, H.W. Homan).

GENERAL VEGETABLES

INSECTS

YELLOWSTRIPED ARMYWORM (*Spodoptera ornithogalli*) - OKLAHOMA - First of season. District> County= status on beet leaves: NE> Tulsa= 1 small larva taken. (D. C. Arnold).

GREEN PEACH APHID (*Myzus persicae*) - IDAHO - District> County= status: SW> Canyon= first winged forms April 28-30, infestations in southwest Idaho rare May 2. (G.W. Bishop).

DECIDUOUS FRUITS AND NUTS

DISEASES

CEDAR-APPLE RUST (Gymnosporangium juniperi-virginianae) - WEST VIRGINIA - Spores released. District> County= galls on red-cedar April 27: SW> Kanawha= teliospore production and release heavy. (R.L. Williams).

INSECTS

CODLING MOTH (Laspeyresia pomonella) - WASHINGTON - District> County= status in pheromone trap April 26: C> Yakima= first emergence at Wapato. (A. Gregorich, D. Johnson). IDAHO - District> County= adults in 5 traps May 2-5: SW> Gem= 280 at Emmett. (C.R. Baird). COLORADO - First adult of season. District> County= male in pheromone trap April 27: Western Slope> Mesa= caught. (A.D. Bulla). KANSAS - First of season. District> County= males in pheromone trap on apples week ending April 25: SE> Neosho= 1 in orchard (F.D. Morrison, B.D. Hilbert); currently: EC> Shawnee and SE> Neosho= caught (B.D. Hilbert, K.O. Bell, Jr.).

ARKANSAS - District> County= codling moth adults April 23: WC> Johnson= emerged at Clarksville and NW> Washington= emerged at Fayetteville. (D.T. Johnson, B. F. Jones). SOUTH CAROLINA - District> County= male averages per pheromone trap on apples April 20-26 and April 26 to May 1: NW> Oconee= 0.9 and 1.6 at Longcreek, 0.3 and 0.7 at Salem, and 0.1 and 0.4 at Mountain Rest; and Pickens= 0 and 0.7 at Six Mile in orchards. (B. Hallman et al.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - KANSAS - First of season. District> County= males in pheromone trap on peach week ending April 25: SC> Sedgwick at Wichita and EC> Shawnee at Topeka and NE> Riley at Manhattan= caught in orchards. (M.B. Morris et al.). SOUTH CAROLINA - District> County= average pheromone trap count on apple April 20-26 and April 26 to May 1: NW> Oconee= 5.0 and 9.2 at Longcreek, 1.7 and 2.3 at Salem, and 17.6 and 7.8 at Mountain Rest; and Pickens= 4.7 and 4.0 at Six Mile in orchards. (B. Hallman et al.). NEW YORK - District> County= trap catch status: W> Wayne= first recorded May 3 (Richardson), Ontario= recorded, adults can be considered flying throughout western area (J. Leeper).

LESSER APPLEWORM (Grapholitha prunivora) - SOUTH CAROLINA - District> County= average pheromone trap count on apple April 20-26 and April 26 to May 1: NW> Oconee= 1.0 and 2.5 at Longcreek, 0.7 and 1.3 at Salem, and 9.7 and 4.1 at Mountain Rest; and Pickens= 0.3 and 4.0 at Six Mile in orchards. (B. Hallman et al.).

EYESPOTTED BUD MOTH (Spilonota ocellana) - NEW YORK - District> County= overwintered larvae April 30: W> Ontario= first activity. (J. Leeper).

LESSER PEACHTREE BORER (Synanthedon pictipes) - ARKANSAS - District> County= adults: WC> Johnson= emerged about 1 month earlier than normal at Clarksville. (D.T. Johnson, B.F. Jones). SOUTH CAROLINA - District> County= males per pheromone trap week ending May 2: WC> Edgefield, Saluda, and C> Lexington= 0-35 (averaged 12) in orchards. (B. Hallman et al.).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - KANSAS - First of season. District> County= males in pheromone traps on peach and apple week ending April 25: EC> Shawnee= caught in orchards at Topeka. (B.D. Hilbert). SOUTH CAROLINA - District> County= average pheromone trap counts on apple April 20-26 and April 26 to May 1: NW> Oconee= 1.4 and 2.5 at Longcreek, 2.3 and 1.3 at Salem, and

and 11.0 and 2.9 at Mountain Rest; and Pickens= 1.3 and 6.0 at Six Mile in orchards (D.R. Johnson). VIRGINIA - District> County= adults in Pherocon 1c traps May 5: N> Frederick= 12. (L. Cobb).

FRUITTREE LEAFROLLER (Archips argyrospilus) - SOUTH CAROLINA - District> County= male averages per pheromone trap on apple April 20-26 and April 26 to May 1: NW> Oconee= 0.1 and 0.4 at Longcreek, 0.3 and 0.3 at Salem, and 1.1 and 0.1 at Mountain Rest; and Pickens= 0 and 0.3 at Six Mile in orchards. (B. Hallman).

A TORTRICID MOTH (Platynota idaeusalis) - SOUTH CAROLINA - District> County= male averages per pheromone trap on apple April 20-26 and April 26 to May 1: NW> Oconee= 10 and 13.7 in Longcreek, 11 and 5.7 at Salem, and 10.1 and 7.2 at Mountain Rest; and Pickens= 2.7 and 13.3 at Six Mile in orchards. (B. Hallman et al.).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - NEW YORK - Area> larval status: Statewide> infested commercial fruit trees (J. Leeper), Lake Ontario region> many observed (R. Norton), and Lake Champlain region> newly hatched found April 28 in young apple orchards and on chokecherry bushes along roadsides (F. McNicholas).

A GRACILLARIID MINER (Lithocolletis blancardella) - NEW YORK - Area> status: W> first egg laying April 29 (Richardson, Way), Western Ontario region> adults swarmed into trap May 1 (D. Pease), and Lake Ontario region> eggs readily noted in some orchards (R. Norton).

WOOLLY APPLE APHID (Eriosoma lanigerum) - NEW MEXICO - District> County= counts on trunks and main branches of apple: SE> Lincoln in Hondo Valley (T. Riddle), Dona Ana at Las Cruces, and Otero at Chaparral= light to heavy, heaviest on hail-damaged trees at Chaparral. (J. Durkin).

APPLE APHID (Aphis pomi) - SOUTH CAROLINA - District> County= alates and apterous forms on apples: NW> Oconee and Pickens= beginning to appear, not at economic thresholds yet. (K. Herman, C.S. Gorsuch).

ROSY APPLE APHID (Dysaphis plantaginea) - SOUTH CAROLINA - District> County= adults on apples: NW> Oconee and Pickens= alates present and very few apterous forms remain. (K. Herman, C.S. Gorsuch).

PEAR PSYLLA (Psylla pyricola) - NEW YORK - District> County= nymphal hatch: W> Wayne= began May 3 (Richardson), reported since throughout western area of State. (J. Leeper).

EUROPEAN RED MITE (Panonychus ulmi) - SOUTH CAROLINA - District> County= adults per leaf on apple: NW> Oconee and Pickens= 1-4. (K. Herman, C.S. Gorsuch). NEW YORK - First hatch in western area. District> County= larval status: W> Ontario= hatched May 2 (Minns) and Lake Ontario region> heavy. (R. Norton).

APPLE RUST MITE (Aculus schlechtendali) - NEW YORK - District> County= overwintered adult females on apple leaves May 3: W> Ontario= observed. (J. Leeper).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - TEXAS - District> County= status on pecan April 28: SC> Caldwell= damaged 2' shoots at Luling (J.N. Cooper); current activity predictions based on temperature model with real time temperatures up to May 6 (J.A. Jackman). See CPPR 5(15):283 for details.

District> County	10% adult emergence	First significant nut entry	City
Southern High Plains> Lubbock	May 16	May 27	Lubbock
Southern High Plains> Midland	May 14	May 24	Midland
Southern Low Plains> Taylor	May 8	May 18	Abilene
South Texas> Jim Wells	Apr 22	May 2	Alice
South Texas> La Salle	Apr 22	May 2	Cotulla
Trans-Pecos> Brewster	May 11	May 22	Alpine
Trans-Pecos> El Paso	May 11	May 21	El Paso
Trans-Pecos> Pecos	May 8	May 19	Fort Stockton
Trans-Pecos> Presidio	May 19	May 29	Presidio
Trans-Pecos> Winkler	May 8	May 18	Wink
Northern High Plains> Potter	May 28	Jun 8	Amarillo
Northern High Plains> Dallam	May 21	Jun 11	Dalhart
SC> Travis	Apr 27	May 8	Austin
SC> Bexar	Apr 28	May 8	San Antonio
Upper Coast> Jefferson	May 1	May 11	Beaumont
Upper Coast> Galveston	May 1	May 11	Galveston
Upper Coast> Harris	Apr 27	May 7	Houston
Upper Coast> Victoria	Apr 28	May 8	Victoria
Lower Valley> Cameron	Apr 19	Apr 29	Brownsville
Lower Valley> Hidalgo	Apr 17	Apr 26	McAllen
Northern Low Plains> Childress	May 16	May 26	Childress
Northern Low Plains> Wichita	May 14	May 24	Wichita Falls
East Texas, North> Panola	Jun 12	Jun 23	Clayton
East Texas, North> Gregg	May 10	May 20	Longview
East Texas, South> Brazos	May 5	May 15	College Station
East Texas, South> Angelina	May 7	May 17	Lufkin
Coastal Bend> Nueces	Apr 21	May 1	Corpus Christi
Blacklands> Tarrant	May 9	May 19	Fort Worth
Blacklands> Dallas	May 5	May 15	Dallas
Blacklands> McLennan	May 7	May 17	Waco
Edwards Plateau> Val Verde	Apr 26	May 6	Del Rio
Edwards Plateau> Kimble	May 6	May 16	Junction
Edwards Plateau> Tom Green	May 7	May 17	San Angelo
Cross Timbers> Palo Pinto	May 12	May 23	Mineral Wells

WINTER MOTH (*Operophtera brumata*) - OREGON - County= 4th and 5th larval instars on English walnut leaves: Multnomah= found at southwestern Portland; filbert, apple, and Prunus species, normal hosts in area. (D. Kimberling).

BLACKMARGINED APHID (*Monellia caryella*) - SOUTH CAROLINA - District> County= nymphs and alate females per compound pecan leaf: NC> Kershaw and S> Beaufort= 1-10 on most trees and Beaufort= 40-60 on scattered trees. (C.S. Gorsuch).

SMALL FRUITS

DISEASES

A LESION NEMATODE (*Pratylenchus* sp.) - PENNSYLVANIA - District> County= counts per 100 cc of soil in strawberry April 16: EC> Schuylkill= 11. (D. Smith).

ORNAMENTALS

INSECTS

BAGWORM (*Thyridopteryx ephemeraeformis*) - OKLAHOMA - First of season. District> County= status on evergreens May 8: SW> Jackson= hatch began at Altus. (D.C. Arnold).

LILAC BORER (*Podosesia syringae*) - KANSAS - First adults of season. District> County= males in pheromone traps: SE> Crawford, SC> Sedgwick, EC> Shawnee, and NE> Riley= caught. (M.B. Morris et al.).

LATANIA SCALE (*Hemiberlesia lataniae*) - FLORIDA - New county record. District> County= collection data from *Homalocladium platycladum* (Centipedeplant): NE> Taylor= adults lightly infested leaves at residence at Perry, January 18, 1980, collected by Q.G. Anglin, determined by A.B. Hamon. Host in locality 1+ years. (Q.G. Anglin).

A PIT SCALE (*Asterolecanium pseudomiliaris*) - FLORDIA - New county record. District> County= collection data from *Bambusa* sp. (bamboo) plant: S> Broward= nymphs and adults moderate on plant at residence at Fort Lauderdale, March 6, 1980, collected by M. McCulloch, determined by A.B. Hamon. (A.B. Hamon).

FOREST AND SHADE TREES

DISEASES

A PINE ROOT DECLINE (*Verticicladiella procera*) - WEST VIRGINIA - Isolations from dying pines. District> County= symptoms in pines April 31: NW> Preston= affected red pines and SW> Mercer= affected red and white pines. (S.C. Haynes).

PINEWOOD NEMATODE (*Bursaphelenchus lignicolus*) - INDIANA - New county records. All determined by J.M. Ferris (R.W. Meyer).

District> County	Host	Nearest city	Collected	Collector
NW> Porter	<u>Pinus</u> <u>sylvestris</u> (Scotch pine)	Valparaiso	Mar 7, 1980	R.B. Cummings
WC> Tippecanoe	<u>Pinus</u> <u>sylvestris</u> (Scotch pine)	West Lafayette	Dec 21, 1979	J.W. Yonker
C> Marion	<u>Pinus nigra</u> (Austrian pine)	Indianapolis	Mar 12, 1980	E. Huff
SE> Clark	<u>Pinus sp.</u> (a pine)	Jeffersonville	Mar 1, 1980	K.A. Conn

INSECTS

A DIASPIDID SCALE (*Diaspidiotus mcombi*) - FLORIDA - New county record. District> County= collection data from *Pinus clausa* (sand pine): C> Hillsborough= adults near Dover, March 5, 1980, collected by J. Felty, determined by A.B. Hamon. Trees growing in wild. (A.B. Hamon).

AN APHID (Cinara pinivora) - OKLAHOMA - New county record. District> County= collection data from ornamental pine: C> Payne= light on scattered trees at Stillwater, April 15, 1980, collected and determined by D.C. Arnold. (D.C. Arnold).

INTRODUCED PINE SAWFLY (Diprion similis) - VIRGINIA - Pupae present. District> County= pupal cases on dwarf white and mugho pine: N> Rockingham= 3 pupae collected from branches at Harrisonburg, April 29. (J. Garner).

ELM LEAF BEETLE (Pyrrhalta luteola) - OKLAHOMA - First adults of season. District> County= status on Siberian elms week ending April 25: C> Payne= active. (D.C. Arnold). KENTUCKY - First adults of season. District> County= status: Bluegrass> Fayette= at Lexington May 7. (R.A. Scheibner).

ELM CALLIGRAPH (Calligrapha scalaris) - OKLAHOMA - First of season. District> County= adults on American elms: C> Payne= in several areas. (D.C. Arnold).

LOCUST LEAFMINER (Odontota dorsalis) - KENTUCKY - First adults of season. District> County= status May 8: Bluegrass> Mason= noted while sweeping roadside. (P.E. Sloderbeck).

SPRING CANKERWORM (Paleacrita vernata) - OKLAHOMA - District> County= status on various shade trees: NC> Kay= very heavy on trees in Kaw Lake area; C> Payne= common on oaks in Lake Carl Blackwell area; NE> Tulsa= heavy on elms, hackberries, and oaks in northern area; Washington= heavy on elms, hackberries, and oaks in river bottoms in Copan area; Nowata= heavy on elms and hackberries; C> Kingfisher= heavy on trees; EC> Adair= moderate to heavy on oaks; Cherokee= heavy on trees; and SC> Stephens= heavy on oaks. (D.C. Arnold). KANSAS - District> County= status on shade trees: SE area> heavy in southern areas (G.A. Clark, L.C. Thompson), and SE> Montgomery at Coffeyville, and Independence= some especially serious defoliation noted (S.C. White).

AN APHID (Aphis pawneepae) - OKLAHOMA - New county record. District> County= collection data from redbud trees: C> Logan= collected from 2 small trees along Cimarron River 3 km north of Guthrie, April 22, 1980. Collected and determined by D.C. Arnold. (D.C. Arnold).

A DIASPIDID SCALE (Chionaspis longiloba) - FLORIDA - New county record. District> County= collection data from Salix caroliniana (ward willow): C> Volusia= adults collected from tree at De Bary, February 12, 1980, by A.L. Bentley and C.R. Roberts, determined by A.B. Hamon. Host growing in wild. (A.L. Bentley, C.R. Roberts).

ELM LACE BUG (Corythucha ulmi) - OKLAHOMA - First adults of season. District> County= adults on elms week ending April 25: C> Payne= in several areas. (D.C. Arnold).

MAN AND ANIMALS

INSECTS

HORN FLY (Haematobia irritans) - OKLAHOMA - District> County= counts per head of cattle: SC> Coal= averaged 200, NC> Major= 150, and NE> Nowata= light to moderate. (D.C. Arnold). SOUTH CAROLINA - District> County= counts per head of cattle: WC> Saluda, Newberry, and C> Lexington= averaged 100-250 (50 per head considered economic threshold). (D.R. Johnson).

FACE FLY (Musca autumnalis) - MISSOURI - District> County= counts per face of cattle week ending May 3: W> St. Clair, C> Hickory, and Benton= light, 0-9 (averaged less than 3) in 3 herds. (R.E. Munson). SOUTH CAROLINA - District> County= counts per head: WC> Newberry= averaged 5.5. (J.B. Kissam).

A TABANID FLY (Hybomitra nigricans) - OKLAHOMA - District> County= counts per head of cattle: SC> Coal= averaged 1 in 1 herd. (D.C. Arnold).

AMERICAN DOG TICK (Dermacentor variabilis) - OKLAHOMA - First of season. District> County= collection data from child week ending April 25: EC> Pittsburgh= at McAlester. (D.C. Arnold). MINNESOTA - First of season. District> County= collection data from dogs: SC> Freeborn and EC> Washington= collected April 29 and 30, respectively. (D.D. Sreenivasam).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (Entomophthora phytonomi) - WEST VIRGINIA - District> County= status on Hypera punctata (clover leaf weevil) April 23: NW> Preston= infected larvae in mixed alfalfa and clover stand. (P.D. Vanbuskirk).

INSECTS

AN APHIDIID WASP (Lysiphlebus testaceipes) - OKLAHOMA - District> County= parasitism of Schizaphis graminum (greenbug): NC> Kay, Noble, Garfield, and Grant= averaged about 50% in many wheat fields, wasp adults 2-15 per 0.3 row m. (D.C. Arnold).

CONVERGENT LADY BEETLE (Hippodamia convergens) - OKLAHOMA - District> County= status: NC> Kay, Noble, Garfield, and Grant= 1-5 per 0.3 row m of wheat and 4-5 per 0.09 sq m of alfalfa, and SW> Jackson, Kiowa, and Harmon= heavy on wheat. (D.C. Arnold).

A CHRYSOMELID BEETLE (Longitarsus jacobaeae) - OREGON - Larval status on Senecio jacobaea (tansy ragwort): Nearing full growth in crowns and roots, new generation of beetles to begin emerging in early June. (P. Larson).

CINNABAR MOTH (Tyria jacobaeae) - OREGON - Status: Heavy emergence began about first of May, egg masses fairly common by May 10. Judging by large number of adults flying, excess larvae expected for amount of Senecio jacobaea (tansy ragwort). (R. Hawkes).

GREEN LACEWINGS (Chrysopa spp.) - OKLAHOMA - District> County= larvae and adults: NC> Kay, Noble, Garfield, and Grant= 1-2 per 0.3 row m of wheat and 1-2 per 0.09 sq m of alfalfa. (D.C. Arnold).

FEDERAL AND STATE PROGRAMS

INSECTS

GRASSHOPPERS - WASHINGTON - District> County= 1st instar nymphs on grasses April 30: C> Yakima= at Toppenish, and Klickitat= at Murdock. (C. Emery). OREGON - County= Melanoplus spp. status: Sherman= surveys indicate uniform hatching, population light, development generally 1st instar; Grant, Jefferson, Wasco, and Wheeler= populations light or development delayed. (J.L. Mellott, P.J. Johnson). NEVADA - District> County= Melanoplus sanguinipes on rangeland:

NE> Eureka= hatch underway, 1st instar nymphs in Dunphy area. (D. Kail). NEW MEXICO - District> County= Melanoplus sp., Eritettix sp., and Drepanopterna sp. status: SE> Chaves, Eddy, and Lea= hatch began April 28 to May 3 (T. Perry); and NE> eastern Quay and southern Union= 1st and 2nd instars economic on range or 303,515-404,687 ha (J. Banfill). OKLAHOMA - District> County= status in pastures: EC> Pittsburg, Adair, SC> Pontotoc, Love, and Coal= nymphs heavy in some areas, 20-30 per 0.8 sq m in latter county; Melanoplus bivittatus common species in first county. (D.C. Arnold).

KANSAS - District> County= various species of grasshoppers per sweep of alfalfa [41 cm tall]; SW> Seward, WC> Scott, Logan, NW> Thomas, Norton, and Rawlins= none to trace in waste areas and rangeland (M.L. Shuman), and SC> Comanche= averaged 2-8 (G.A. Salsbury). NEBRASKA - District> County= status: SW> Lincoln and N> Blaine= nymphs hatched (Campbell); NW, NC, and NE area> survey indicates hatch soon in many areas along drainage of Niobrara, parasitism generally low, eggs found with little difficulty; and N area> range very dry, not favorable for development of fungal diseases (Johnson).

Grasshopper development stages:

District> County	Egg stage				Nymphal instar	
	Clear	Coagulated	Segmented	Eyespot	1st	2nd
NW> Morrill	X	X	X	X		
NW> Sheridan			X	X		
N> Cherry	X	X	X	X		
N> Brown	X	X	X	X		
N> Rock	X	X	X	X		
N> Garfield			X	X		
NE> Knox		X	X	X	X	X
NE> Antelope	X	X				
C> Dawson	X	X				

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - District> County= counts per pheromone trap per day: C> Maricopa= 0-20 and SW> Yuma= 5-9. (O. Fraser et al.).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - District> County= larval status: NE> Colfax= hatch began 16 km southwest of Springer. (T. Bellows).

DETECTION

NEW COUNTY RECORDS

DISEASES

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - INDIANA - Porter, Tippecanoe, Marion, and Clark. (p. 307).

INSECTS

ALFALFA WEEVIL (Hypera postica) - TEXAS - Bexar. (p. 298).

AN ANT (Formica pallidefulva) - OKLAHOMA - District> County= collection data from mound: C> Seminole= collected in lawn at Wewoka, April 19, 1980, by W. Jones, determined by J.H. Young. (D.C. Arnold).

AN APHID (Aphis pawneepae) - OKLAHOMA - Logan. (p. 308).

AN APHID (Cinara pinivora) - OKLAHOMA - Payne. (p. 308).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - OKLAHOMA - Jefferson. (p. 300).

A DIASPIDID SCALE (Chionaspis longiloba) - FLORIDA - Volusia. (p. 308).

A DIASPIDID SCALE (Diaspidiotus mcombi) - FLORIDA - Hillsborough. (p. 307).

LATANIA SCALE (Hemiberlesia lataniae) - FLORIDA - Taylor. (p. 307).

A PIT SCALE (Asterolecanium pseudomiliaris) - FLORIDA - Broward. (p. 307).

LIGHT TRAP COLLECTIONS

LIGHT TRAP COLLECTIONS				Temperature °C (°F)	Precipitation mm	Type of trap	Agrotoxis (black light) 0 = mercury vapor 1 = blacklight	Elasmagaster (black cutworm)	Euxoa auxiliaris (army cutworm)	Parotis diffusa (wheat head armyworm)	Peltis subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Lasiocampa pomonella (codling moth)	Loxostege compositella (alfalfa webworm)	Loxostege ranaalis (varied webworm)	Loxostege siccalis (beet webworm)	Manduca quinquemaculata (tomato hornworm)	Manduca sexta (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma cornu-borae (variegated cutworm)	Pseudaleia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (tall armyworm)	Spodoptera ornithogalli (vegetable armyworm)	Crops
ARIZONA Mesa 4/28-5/4			BL	26									5								19	4	37	37	3	
CALIFORNIA Bellota 5/5	12-27		BL	3							1															
Manteca 5/4	13-32		BL	4	3					4																
FLORIDA Gainesville 5/1-7			BL							7																
INDIANA Tippecanoe 5/8			BL	0									0								0			0		
KANSAS Hays 4/30-5/5			BL	2																	0					
Haviland 5/5-8			BL	24		0	2														5	24	75	4	9	
KENTUCKY Elkton 5/1-5			BL	1																						
Lexington 5/1-8			BL	0																						
MISSISSIPPI Stoneville 4/25-5/1	10-25	65.3	2BL	98	2							1									5	192				
NEBRASKA Aurora 5/2-6			BL	5																						
Clay Center 4/29-5/8			BL	13			6																			
TEXAS College Station 5/1-5			BL	0	0								0	0				0	0					0	0	0
VIRGINIA Painter 4/27-5/3			BL	8																						2

METRIC CONVERSION

1 cm	= 0.393701 in
1 m	= 3.28084 ft = 1.09361 yd
1 km	= 0.621371 mi
1 sq cm	= 0.155000 sq in
1 sq m	= 10.7639 sq ft = 1.19599 sq yd
1 ha	= 2.47104 acres
1 sq km	= 0.386101 sq mi
1 kg	= 2.20462 lb
1 t (metric ton)	= 1.10231 short ton
1 kg/ha	= 0.892183 lb/acre
1 t/ha	= 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

NATIONAL AGRICULTURAL LIBRARY



1023142887

Official Business

34/033VIDMDHYNN R1 CPR-0001
C H HOFFMANN
6906 40TH AVE
HYATTSVILLE MD 20782



a 5B823

.763

United States
Department of
Agriculture

Animal and Plant
Health Inspection
Service

Plant Protection
and Quarantine

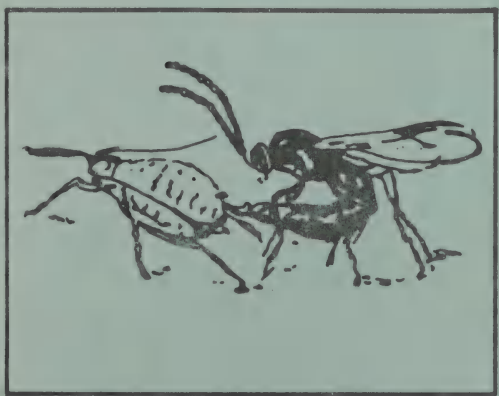
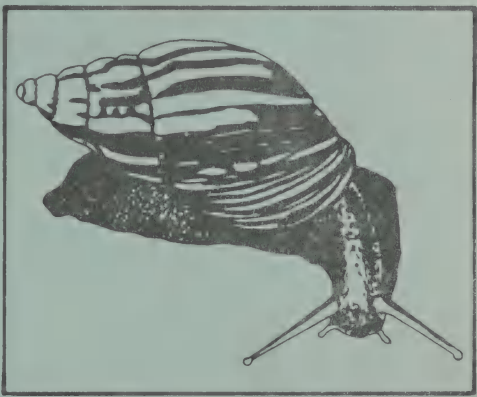
Cooperative Plant Pest Report

May 23, 1980

Vol. 5

No. 17

(S)



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR

New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

**We cannot make address changes
unless we have your mailing code**

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

GREENBUG on sorghum in parts of Texas and Missouri. (p. 317).

WHEAT LEAF RUST heavy on wheat but losses will be minimal. (p. 317).

Severity of WHEAT POWDERY MILDEW on wheat in northern Georgia greater than in past 5 years. (p. 318).

ASTER LEAFHOPPER migrants on small grains in Wisconsin. (p. 320).

ALFALFA WEEVIL economic on alfalfa in parts of Missouri, Illinois, and Ohio and reached economic thresholds in parts of Maryland. (p. 322).

BOLL WEEVIL heavy statewide in Texas. (p. 323).

Problem with ARMY CUTWORM on sugar beets in northwestern Nebraska. (p. 324).

APPLE SCAB could become serious in parts of New Hampshire if wet weather persists. (p. 326).

Detection

Two ICHNEUMONID WASPS are new for Wisconsin. (p. 328).

For new county records see page 330.

An APHELINID WASP colonized at 1 site in Florida. (p. 328).

Some First Occurrences of the Season

EUROPEAN CORN BORER females in Maryland. BLACK CUTWORM adults in Wisconsin. WHEAT POWDERY MILDEW and WHEAT DOWNY MILDEW on wheat in Kansas. POTATO LEAFHOPPER on alfalfa in Kentucky and Illinois and migrants in Wisconsin. COLORADO POTATO BEETLE adults on tomato in Maryland. CEDAR-APPLE RUST spores in Virginia. WHITE APPLE LEAFHOPPER in western New York.

Reports in this issue are for the week ending May 16 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		Cole Crops	
Insects.....	315	Insects.....	325
Small Grains		Cucurbits	
Diseases.....	317	Insects.....	325
Insects.....	319	General Vegetables	
Forage Legumes		Insects.....	325
Diseases.....	321	Deciduous Fruits and Nuts	
Insects.....	321	Diseases.....	325
Cotton		Insects.....	326
Insects.....	323	Small Fruits	
Sugar Beets		Insects.....	328
Insects.....	324	Forest and Shade Trees	
Potatoes, Tomatoes, Peppers		Diseases.....	328
Insects.....	324		
Beneficial Organisms and Their Enemies			
Diseases.....	328		
Insects.....	328		
Federal and State Programs			
Diseases.....	329		
Insects.....	329		
Detection.....	330		
Light Trap Collections.....	331		

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - OHIO - District> County= status per cornstalk May 13: SW> Warren= overwintered larvae began pupation, overwintered larvae 0.15 and pupae 0.10 in 1 field for total of 0.25; SC> Highland= larvae 0.02; and C> Fayette= 0.04 [single leaf open]. (R.W. Wadleigh). MARYLAND - First females of season. District> County= females in light traps: NC> Queen Annes= 27 on May 4 and 5, and Eastern Shore> Caroline= 13 on May 5 and 6. (R. Hochmuth).

WISCONSIN - Dissections of cornstalks in southern area show near normal overwintering European corn borer survival week ending April 18. District> County= winter survival: SW> Iowa= 88%, SC> Rock= 90%, Dane= 92%, and Columbia= 66%; survival lower in fields where stalks shredded or fall-plowed, additional dissections to be made. Current cool temperatures slowed development. No pupae in limited cornstalk dissections in several southern fields. Degree-day accumulations indicate pupae should be appearing in western counties. Degree-day accumulations (base 10°C) March 1 through May 14 (O.L. Lovett):

District> County	Degree-day accumulations	City
SC> Dane	144	Madison
SE> Washington	153	Hartford
EC> Outagamie	138.6	Appleton
C> Wood	163	Marshfield
WC> Dunn	204	Menomonie

BLACK CUTWORM (*Agrotis ipsilon*) - MISSOURI - Light in all areas where corn germinated, very few fields economic. District> County= status of this species and DINGY CUTWORM (*Feltia ducens*) on corn: W> Bates= completely destroyed stand in 1 field, NE> Audrain= cut 7.5% of stand and chemical controls applied in 1 field, and NW> Atchison= removed 5+ of stand in 1 field. (R.E. Munson). ILLINOIS - Pheromone trap catches increased. (A.M. Agnello). District> County= status on corn: WSW> Morgan, W> Hancock, SW> St. Clair, and Perry= damage up to 14% in 100 plants; C> Tazewell, SE> Franklin, and Pope= also on sweet corn. (R. Randell).

WISCONSIN - First black cutworm adults of season. District> County= adult status: SW> Grant= in blacklight trap at Lancaster May 10 and SC> Dane= in pheromone trap at Oregon May 11. (O.L. Lovett). KENTUCKY - District> County= counts in number of pheromone traps May 6-13: Midwestern> Christian= 2 in 4, C> Hardin= 0 in 4, and Bluegrass> Fayette= 0 in 3. (P.E. Sloderbeck).

OHIO - District> County= black cutworm males in pheromone traps: NC> Ashland= 15 in 4 traps April 25-29, C> Knox= 21 in 4 traps April 25-29, and NE> Wayne= 62 in 12 traps April 22-29. (M. Casey). Degree-day (DD) accumulations (base 10.42°C): NE> Wayne= 42 DD at Wooster by March 31 (date of first adult catch), total of 48 DD January 1 to April 30. Eggs deposited by early adults probably beginning to hatch. (S. Clement). Males in pheromone traps May 8-14: NC> Ashland= 5 in 4, C> Knox= 2 in 4, and NE> Wayne= 39 in 12. (M. Casey). NEW YORK - Area> males per pheromone trap station up to May 9: Statewide> 0-28 (averaged about 12). (H.R. Willson).

FALL ARMYWORM (*Spodoptera frugiperda*) - LOUISIANA - District> Parish= 3rd to 5th instar larvae on field corn [whorl] May 11: EC> East Baton Rouge and East Feliciana= infested less than 1% of plants in 2 fields. (T.J. Riley). FLORIDA - District> County= adults per pheromone trap: C> St. Johns= averaged 50 week ending April 16, 30 week ending April 23, and 11 week ending April 30 at Hastings. (R.B. Workman).

ARMYWORM (*Pseudaletia unipuncta*) - MARYLAND - District> County= adults in light traps: NC> Queen Annes= 33 on May 4-5, and Eastern Shore> Caroline= 110 on May 5-6. (R. Hochmuth).

DINGY CUTWORM (*Feltia ducens*) - NEBRASKA - District> County= this species and DARKSIDED CUTWORM (*Euxoa messoria*) on seedling corn: SE> Fillmore= no signs of damage in 8 fields in soybeans in 1979, 3% of plants in ninth field (in blue-grass sod in 1979) chewed, none cut; and C> Dawson= no damage in 4 of 7 fields in alfalfa in 1979, 3% of plants cut in 2 fields and 14% and 22% of plants chewed or cut, respectively, and 6.9% of plants cut and 33% of plants chewed or cut in seventh field. (Raun). ILLINOIS - District> County= status on corn: W> Adams and WSW> Morgan= damage about 5%. (S. Scanlan).

A NOCTUID MOTH (*Euxoa detersa*) - ILLINOIS - District> County= status on corn: C> Mason= treatments applied, and NW> Carroll= severe enough to cause replanting. (J. Shaw).

WESTERN CORN ROOTWORM (*Diabrotica virgifera*) - MINNESOTA - New county records. Collection data from Zea mays (corn) (D.D. Sreenivasam):

<u>District> County</u>	<u>City</u>	<u>Date</u>	<u>Collector and determiner</u>
C> Benton	Maywood Township near Gilman	Aug 24, 1976	D. Sreenivasam
C> Morrison	Pike Creek Township near Little Falls	Aug 24, 1976	D. Sreenivasam
C> Todd	Bertha Township near Bertha	Aug 14, 1978	P. Anderson
WC> Grant	Sanford Township near Elbow Lake	Aug 11, 1976	P. Anderson
WC> Traverse	Taylor Township near Wheaton	Aug 10, 1976	P. Anderson
WC> Wilkin	Connely Township near Brushvale	Aug 5, 1977	P. Anderson
EC> Kanabec	Brunswick Township near Mora	Aug 23, 1976	D. Sreenivasam
EC> Mille Lacs	Milaca Township near Foreston	Aug 17, 1978	R. Schwab, Jr.

SOUTHERN CORN ROOTWORM (*Diabrotica undecimpunctata howardi*) - TEXAS - District> County= counts on corn May 9: Coastal Bend> Refugio, Upper Coast> Calhoun, and Victoria= severe. (J.A. Jackman).

A CHRYSOMELID BEETLE (*Diabrotica virgifera zeae*) - TEXAS - New county record. District> County= collection data from *Zea mays* (corn): SC> Goliad= city unknown, May 10, 1979, by R.D. Parker, determined by J.L. Krysan. (J.A. Jackman).

GREENBUG (*Schizaphis graminum*) - TEXAS - Light on sorghum in Blacklands and north-central areas. (E.P. Boring, III). MISSOURI - Area> infestations on seedling sorghum: SW and SE> reported, probably due to migrations from southwestern United States. (R.E. Munson).

SMALL GRAINS

DISEASES

Small grain development 1-2 weeks behind normal throughout southern United States, April 30 to May 13. Soil moisture shortages across Great Plains. Small grain planting in northern area ahead of 1979 and average planting date. Much of remaining unplanted area needs rain before planting feasible and some showers occurred in this area in past few days. Projected wheat yields in main production area of north-central Texas below average. (A.P. Roelfs, D. Long).

WHEAT LEAF RUST (*Puccinia recondita* f.sp. *tritici*) severities variable in southern wheat nurseries April 30 to May 13. Severe, as in 1979, on trap plot of 'McNair 701', which has Lr9 (transfer resistance). Infections in Arthur type wheat moderate to severe and generally more severe than in 1979. Current heavy severities due to mild winter and wet cool spring after considerable leaf rust increases in the fall. Severities 20% in some southeastern commercial wheat fields. Losses will be minimal due to warm temperature and rapid crop development. Severe in nurseries at Temple and McGregor, TEXAS, but only traces in a few north-central Texas commercial fields. Traces in nurseries as far north as Stillwater, OKLAHOMA. (Gough). KANSAS - District> County= prevalence on wheat week ending May 9: NC> Ottawa= trace in 1 field. (T. Sim, IV).

OAT CROWN RUST (*Puccinia coronata* var. *avenae*) severities trace to 60% in small grain varietal plots from NORTH CAROLINA to TEXAS, April 30 to May 13. Severe in plots at Giddings, Texas, but developed slowly and did not severely damage most cultivars. Only traces on commercial oats. (A.P. Roelfs, D. Long).

STRIPE RUST (*Puccinia striiformis*) in western WASHINGTON prevalent on susceptible wheat cultivars but no problem on commonly grown cultivars April 30 to May 13. (Line).

BARLEY LEAF RUST (*Puccinia hordei*) light in some varietal plots in southern United States, April 30 to May 13. (A.P. Roelfs, D. Long).

RYE LEAF RUST (*Puccinia recondita* f.sp. *secalis*) traces on rye in experimental plots in southern States, April 30 to May 13. (A.P. Roelfs, D. Long).

A LEAF RUST (*Puccinia recondita*) traces on triticale in experimental plots in southern States, April 30 to May 13. (A.P. Roelfs, D. Long).

For stem rusts see page 329.

SEPTORIA GLUME BLOTCH (Leptosphaeria (Septoria) nodorum) - Imperfect stage severe on many wheat cultivars in nurseries and commercial fields in south-eastern States, April 30 to May 13. Losses will occur in some fields. (A.P. Roelfs, D. Long).

SPECKLED BLOTCH (Leptosphaeria (Septoria) avenaria) - Imperfect stage light to moderate on oats in the southern States, April 30 to May 13. (A.P. Roelfs, D. Long).

SPECKLED LEAF BLOTCH (Septoria tritici) - KANSAS - Area> status on wheat week ending May 9: Statewide> continued common, activity appeared to be slowly increasing. (T. Sim, IV).

WHEAT POWDERY MILDEW (Erysiphe graminis f.sp. tritici) more severe on wheat in northern GEORGIA, April 30 to May 13, than in previous 5 years. (Cunfer). Heavy in some western WASHINGTON small grain plots. (A.P. Roelfs, D. Long). KANSAS - First wheat powdery mildew of season. Status on wheat week ending May 9 (T. Sim, IV):

District> County	Prevalence (%)	Severity (%)	Host stage
SC> Sumner	25	light	boot
SC> Sedgwick	5	light	boot
EC> Douglas	20	light	heading
EC> Franklin	50	light	boot
EC> Anderson	30	light	flag leaf expanded
SE> Allen	trace	light	flag leaf expanded
SE> Neosho	100	moderate	heading
SE> Labette	20-75	light	boot to heading
SE> Montgomery	trace to 100	light to heavy	heading
SE> Chautauqua	20-100	light	boot to heading
SE> Butler	5	light	boot

WISCONSIN - District> County= wheat powdery mildew status on winter wheat: SC> Columbia and Dane= early infection appeared. (O.L. Lovett).

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - KANSAS - Became more obvious on wheat in parts of central and eastern areas. Status on wheat week ending May 9 (T. Sim, IV):

District> County	Prevalence (%)	Severity (%)	Host stage
SC> Sumner	10	light	boot
SC> Sedgwick	trace to 30	light to moderate	flag leaf visible
SC> Harvey	25	light	flag leaf visible
SC> Reno	5	light	flag leaf visible
SE> Cowley	25	light	boot
EC> Geary	1	light	joint
EC> Morris	trace	light	joint
C> McPherson	5-50	moderate	joint
C> Rice	30	severe	joint

TAN SPOT (Pyrenophora trichostoma) - KANSAS - Area> status on wheat week ending May 9: Statewide> continued to be common, activity seemed to have decreased. (T. Sim, IV).

LOOSE SMUT (*Ustilago nuda*) - KANSAS - District> County= prevalence on wheat week ending May 9: SE> Montgomery= trace in 1 field. (T. Sim, IV).

A LOOSE SMUT (*Ustilago* sp.) - MARYLAND - Area> status on barley week ending May 9: Eastern Shore> well above economic levels in isolated fields. Contamination of 1981 seed crop expected to be heavy unless seed treated for storage and use. (J.L. Hellman, R. Hochmuth).

WHEAT DOWNY MILDEW (*Sclerophthora macrospora*) - KANSAS - First of season. District> County= prevalence on wheat week ending May 9: SC> Sedgwick and Reno= trace in 1 field each. (T. Sim, IV).

WHEAT STREAK MOSAIC VIRUS - KANSAS - District> County= status on wheat week ending May 9: SC> Pawnee, Comanche, C> Rice, Ellis, and EC> Chase= hectares infected still small; recent cool weather may slow activity of mite vector. (T. Sim, IV).

BARLEY YELLOW DWARF VIRUS caused red leaf on oats in few scattered areas of southern States, April 30 to May 13. (A.P. Roelfs, D. Long).

INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - MISSOURI - Area> 2nd and 3rd instar larvae per 0.09 sq m of wheat: C and EC> very light, averaged less than 1. (R.E. Munson).

GREENBUG (*Schizaphis* aminum) - TEXAS - Survey on wheat April 24 to May 5 (N.E. Daniels):

District> County	Maximum per 0.3 row m	Lady beetles per plant	Parasitized greenbugs (%)
Northern High Plains> Oldham	50	0-2	0-1
Northern High Plains> Deaf Smith	20	1-4	0-1
Northern High Plains> Castro	300	1-4	1-5
Northern High Plains> Parmer	5	0-1	0
Northern High Plains> Potter	2,000	3-6	5-10
Northern High Plains> Hartley	1	0-1	0
Northern High Plains> Dallam	10	0-1	0
Northern High Plains> Sherman	20	0-2	1
Northern High Plains> Moore	30	0-1	0-2
Northern High Plains> Randall	30	1-3	1-5
Northern High Plains> Swisher	3,000	4-10	10-12
Northern High Plains> Briscoe	0	0-1	0

<u>District> County</u>	<u>Maximum per 0.3 row m</u>	<u>Lady beetles per plant</u>	<u>Parasitized greenbugs (%)</u>
Northern High Plains> Floyd	0	0	0
Northern High Plains> Hale	30	0-2	1
Northern High Plains> Hutchinson	30	0-2	1
Northern High Plains> Hansford	800	2-6	5-10
Northern High Plains> Ochiltree	30	0-1	0
Northern High Plains> Carson	5	0-2	0
Northern High Plains> Gray	5	0-1	1
Northern High Plains> Roberts	0	0	0
Northern High Plains> Hemphill	5	0-1	0
Northern High Plains> Armstrong	0	1-31	0
Northern Low Plains> Hall	30	0-2	0
Northern Low Plains> Wheeler	0	0-1	0
Northern Low Plains> Donley	10	1-2	0
Northern Low Plains> Hall	0	0-2	0
Northern Low Plains> Childress	0	1-3	0
Northern Low Plains> Collingsworth	0	1-2	0

Greenbug counts per 0.09 row m of small grains May 5 (E.P. Boring, III):

<u>District> County</u>	<u>Counts</u>
Cross Timbers> Archer	0-1
Southern Low Plains> Baylor	0-1
Northern Low Plains> Wilbarger	0-1
Northern Low Plains> Foard	up to 12
Northern Low Plains> Wichita	up to 2
Trans-Pecos> El Paso	1-5

NEBRASKA - District> County= greenbug on wheat: SE> Nemaha= infested 25% of plants in 1 field, leaves yellowed and browned with reddened feeding spots in low areas of field. Larvae of Hippodamia spp. (lady beetles) heavy. (Shires).

ASTER LEAFHOPPER (Macrostelus fascifrons) - WISCONSIN - District> County= migrant adults per 100 sweeps of oats and winter grains: WC> Trempealeau, La Crosse, SW> Vernon, Sauk, Grant, SC> Dane, and Rock= 0-8. (O.L. Lovett).

BROWN WHEAT MITE (Petrobia latens) - TEXAS - District> County= counts per 0.03 row m of small grains May 5: Cross Timbers> Archer= up to 116 and Southern Low Plains> Baylor= 0-25. (E.P. Boring, III).

FORAGE LEGUMES

DISEASES

SPRING BLACK STEM AND LEAF SPOT (Phoma medicaginis) - KANSAS - Most prevalent alfalfa disease week ending May 9. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host height (cm)</u>
EC> Geary	100	none	38
EC> Miami	100	1-25	51
EC> Anderson	100	1-25	25
C> Dickinson	100	1-25	30-38
C> Marion	80-100	0-25	38-46
C> McPherson	90-100	1-25	36-66
C> Rice	100	1-25	61
C> Saline	100	1-25	56
NC> Washington	100	1-25	46
NC> Republic	100	1-25	51-56
NC> Cloud	100	1-25	61-64
NC> Ottawa	30	1-25	51
SE> Labette	100	1-25	30
SE> Montgomery	100	26-50	30
SE> Chautauqua	100	26-50	46
SE> Cowley	100	26-50	46
SC> Sumner	100	26-50	46
SC> Sedgwick	100	26-50	46
SC> Stafford	100	26-50	56
SC> Pawnee	100	1-25	56
SC> Reno	100	none	66
SC> Harvey	100	1-25	66

ALFALFA DOWNY MILDEW (Peronospora trifoliorum) - KANSAS - Status on alfalfa week ending May 9 (T. Sim, IV):

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host height (cm)</u>
C> Dickinson	trace	none	38
SC> Harvey	trace	none	66
SC> Edwards	100	1-25	15
SC> Kiowa	1	none	46
NC> Clay	1	none	46

ALFALFA MOSAIC VIRUS - KANSAS - District> County= prevalence on alfalfa week ending May 9: EC> Geary and C> Dickinson= trace in 1 field each. (T. Sim, IV).

INSECTS

ALFALFA WEEVIL (Hypera postica) - IDAHO - District> County= larval and adult averages per sweep of forage Tegumes May 8: SW> Canyon= 0-6 and 0-2 at Caldwell. (C.R. Baird).

MISSOURI - Area> alfalfa weevil status on alfalfa: C and EC> larvae, all sizes, heavy (3-22 per untreated plant), pupation just started, damage heavy (80-100% of plants). (R.E. Munson).

ILLINOIS - Many fields south of U.S. Highway 50 cut or treated, and many fields on west side as far north as U.S. Highway 24 at or near treatment levels. District> County= alfalfa weevil larvae per 30 alfalfa [host height] stems and tip feeding: E> Piatt= up to 23 [51 cm] and 10%; ESE> Douglas= up to 23 [48 cm] and 5%; Jasper= 155 [48 cm] and 40%; WSW> (county not given)= about 60 [56 cm] and 10%; W> Henderson and Hancock= 8-11 [54 cm] and 5%; and Knox, Warren, NW> Henry, and Mercer= 10 fewer [not given] and trace. Accumulated heat units (base 8.9°C) up to May 15:

<u>District> County</u>	<u>Heat units</u>	<u>City</u>
NW> Winnebago	145	Rockford
NE> Will	152	Elwood
W> Adams	259	Quincy
C> Peoria	191	Peoria
E> Champaign	167	Urbana
WSW> Sangamon	239	Springfield
ESE> Fayette	248	Brownstown

WISCONSIN - Adult alfalfa weevil activity increased. District> County= status on alfalfa: WC> La Crosse= eggs in stems; SW, WC, and SC areas> egg clusters 0-2 per 10 stems, averaged less than 1 per 20 stems, heaviest in new seeding in sandy area of western Dane County. Most eggs recently laid. Larvae from fall-laid eggs in south-central, southwestern, and west-central areas, and in NC> Marathon County. Larval tip infestation not more than 3%. Degree-day accumulations (base 8.9°C) March 1 to May 14 (O.L. Lovett):

<u>District> County</u>	<u>Degree-day accumulations</u>	<u>City</u>
SC> Dane	131	Madison
SE> Washington	138	Hartford
EC> Outagamie	139	Appleton
C> Wood	148	Marshfield
WC> Dunn	181	Menomonie

INDIANA - District> status on alfalfa: N> larvae averaged 12%, apparently early in season; mostly 1st and 2nd instar, feeding damage negligible; alfalfa averaged 30-35 cm with luxuriant growth, stems [early bud] trace; and NC> counts nearly 4 times as heavy (43%) at northern edge. Heat unit accumulations (base 8.9°C) January 1 to May 15: NW> La Porte= 167 at Wanatah, NC> St. Joseph= 169 at South Bend, NE> Allen= 131 at Fort Wayne, WC> Tippecanoe= 153 at West Lafayette, C> Marion= 209 at Indianapolis, and SW> Vanderburgh= 282 at Evansville. (R.W. Meyer).

OHIO - Economic alfalfa weevil damage in central and northern areas. District> County= larvae and adults per sweep of alfalfa [host height] and percent tip damage May 12-13: C> Fayette= 0.25 and 0.13 [30-38 cm] and 15% (light) and SC> Highland= 7.06 and 0.73 [38 cm] and 13% (light), 23% (moderate), and 64% (heavy). (R.W. Wadleigh).

MARYLAND - District> County= status of alfalfa weevil on forage legumes week ending May 9: Statewide area> populations peaked, pupated in all areas; C area> 50-60% of fields reached economic threshold levels; NC> Queen Annes, Kent, and Eastern Shore> Talbot= 40-60% of fields reached economic threshold levels, populations well above normal, heaviest in 10 years. (J.L. Hellman, R. Hochmuth).

ALFALFA BLOTCH LEAFMINER (*Agromyza frontella*) - MARYLAND - First of season. District> County= adults on forage Tegumes week ending May 9: NC> Baltimore= fed on tips but no mines to date in several fields. (J.L. Hellman, R. Hochmuth).

POTATO LEAFHOPPER (*Empoasca fabae*) - KENTUCKY - First adults of season. District> County= adults on alfalfa May 13: Bluegrass> Fayette= swept. (J.C. Parr). ILLINOIS - First of season. District> County= counts on alfalfa: SE> Massac= 1 per 10 sweeps, very light; Pope= 1 per 15 sweeps (S. Moore); and SW> St. Clair= 1 (K. Steffey). WISCONSIN - First migrants of season. District> County= counts per 50 sweeps of alfalfa May 12: SC> Rock and Dane= fewer than 1. (O.L. Lovett).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - TEXAS - Populations heavy in all areas. Decreased in traps in Lower Rio Grande Valley but built up in fields. Counts on cotton May 5-9 (J. Cocke et al.):

District> County	Counts
Lower Rio Grande Valley	0-1 per trap per week
Lower Valley> Cameron at Los Fresno	damage increased
Lower Valley> Cameron	weevils 0-2 per 100 plants
Lower Valley> Cameron	damaged squares 0-40 per 100 plants
Lower Valley> Hidalgo	weevils 0-2 per 100 plants
Lower Valley> Hidalgo	damaged squares 0-6 per 100 plants
Lower Valley> Willacy	weevils 0 per 100 plants
Lower Valley> Willacy	damaged squares 0-16 per 100 plants
Upper Coast> Fort Bend	adults 1.25-37.5 per 4 traps per week
Coastal Bend> Kleberg	weevils 0-1 per 100 plants
Coastal Bend> Kleberg	damage 0-2 per 100 plants
Coastal Bend> Kleberg	punctured squares 0-4%
Coastal Bend> Nueces	adults 0-1 per 100 plants
Coastal Bend> Nueces	damage 0-2 per 100 plants
Coastal Bend> San Patricio	adults 0-1 per 100 plants
Coastal Bend> San Patricio	no damage per 100 plants
Coastal Bend> San Patricio	adults 1.25-3.75 per trap per week
Coastal Bend> Nueces & South Texas> Jim Wells	weevils 0-2 per 100 plants
Coastal Bend> Nueces & South Texas> Jim Wells	punctured squares 0-5%
Coastal Bend> San Patricio & Refugio	weevils 0-2 per 100 plants
Coastal Bend> San Patricio & Refugio	punctured squares 0-3%
South Texas> Dimmit in Winter Garden area	weevils up to 10 per 0.3 row m
Blacklands> Hill & Johnson	14-43 per trap per week
Blacklands> Hill & Johnson	12-25 per trap per week

BOLLWORM (Heliothis zea) - TEXAS - Populations of this species and TOBACCO BUDWORM (Heliothis virescens) generally light on cotton. Eggs and damaged squares at economic levels in some fields in Lower Rio Grande Valley. Bollworm heavy in pheromone traps at El Paso. District> County= adults counts of tobacco budworm and bollworm respectively, per trap per day May 9: Trans-Pecos> El Paso= less than 1 and 25-30. (J.A. Jackman). Counts on cotton May 5-9 (J. Cocke et al.):

District> County	Counts per 100 plants		
	Eggs	Larvae	Damaged squares
Lower Valley> Cameron	0-14	0-12	-
Lower Valley> Hidalgo	0-40	0-15	0-26
Lower Valley> Willacy	0-2	0-3	0-5
Coastal Bend> Kleberg	3-10	4-10	4-10%
Coastal Bend> Nueces & South Texas> Jim Wells	3-5	0-6	1-4%
Coastal Bend> San Patricio & Refugio	0-3	0-3	0-3%

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Counts per 100 cotton plants May 5-9 (J. Cocke et al.):

District> County	Counts
Lower Valley> Cameron	0-8
Lower Valley> Hidalgo	0-32
Lower Valley> Willacy	0-29
Lower Gulf Coast	light to moderate
Coastal Bend> Kleberg	6-18
Coastal Bend> Nueces & South Texas> Jim Wells	0-20
Coastal Bend> San Patricio & Refugio	0-23

SUGAR BEETS

INSECTS

ARMY CUTWORM (Euxoa auxiliaris) - NEBRASKA - District> County= larvae, most full grown, per 0.3 row m of sugar beets: NW> Scotts Bluff and Morrill= averaged less than 0.5 in fields checked, but some plants being cut in from 3.0-4.6 row m due to small size of beets; about 4,900 ha needed treatment and 800-1,000 ha may have to be replanted. (Hagen).

POTATOES, TOMATOES, PEPPERS

INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - MARYLAND - First adult of season. District> County= status on tomato week ending May 9: Eastern Shore> Wicomico= emergence heavy as transplants being set, no controls recommended but heavy increases expected soon. (R. Hochmuth).

COLE CROPS

INSECTS

CABBAGE LOOPER (*Trichoplusia ni*) - FLORIDA - District> County= larvae per cabbage plant: C> St. Johns= averaged 0.4 on untreated plant April 17, 1.25 on April 24, and 4.6 on May 6 at Hastings. (R.B. Workman).

DIAMONDBACK MOTH (*Plutella xylostella*) - FLORIDA - District> County= larvae per cabbage plant: C> St. Johns= 1.5 on untreated plant April 17, 4.6 on April 24, and 2.6 on May 6 at Hastings. (R.B. Workman).

CABBAGE MAGGOT (*Hylemya brassicae*) - NEW YORK - District> County= status: W> Erie= first eggs found May 6 in central area (E. Rutkowski) and Ontario= few adult males in cone traps at Geneva (C.J. Eckenrode).

SOUTHERN GREEN STINK BUG (*Nezara viridula*) - FLORIDA - District> County= nymphs and adults on broccoli: C> Hillsborough= heavily infested truck crop planting at east Tampa, up to 7 per head on some plants. (L. Maxwell).

CUCURBITS

INSECTS

STRIPED CUCUMBER BEETLE (*Acalymma vittata*) - NEBRASKA - District> County= overwintered adults on cucumbers: E> Lancaster= up to 10 per plant in test plots, more heavily damaged than Crenshaw melons, some seedlings completely eaten through base. (Steadman).

SEEDCORN MAGGOT (*Hylemya platura*) - MARYLAND - First of season. District> County= status on cantaloupe seeds week ending May 9: Eastern Shore> Wicomico= populations reported. (R. Hochmuth).

GENERAL VEGETABLES

INSECTS

ONION MAGGOT (*Hylemya antiqua*) - NEW YORK - District> County= adult status: W> Orleans= first caught May 8. (D. Grad).

VARIEGATED CUTWORM (*Peridroma saucia*) - UTAH - District> County= status on vegetable crops: S> Kane= heavy populations extensive, plants being cut off in Kanab area. (V.B. Matthews, R.S. Roberts).

DECIDUOUS FRUITS AND NUTS

DISEASES

CEDAR-APPLE RUST (*Gymnosporangium juniperi-virginianae*) - KANSAS - Area> status for apples, crabapples, and hawthorns week ending May 9: Parts of SC and NE area> telial galls began releasing spores due to recent rain showers, future showers will again cause galls to release spores. Controls recommended. (T. Sim, IV). VIRGINIA - District> County= status of spores April 10: N> Frederick= first noted emergence. (K. Yoder).

CEDAR-HAWTHORN RUST (Gymnosporangium globosum) - KANSAS - Area> status for apples, crabapples, and hawthorns week ending May 9: Parts of SC and NE area> telial galls began releasing spores due to recent rain showers, future showers will again cause galls to release spores. Controls recommended. (T. Sim, IV).

APPLE POWDERY MILDEW (Podosphaera leucotricha) - VIRGINIA - District> County= status on terminal buds of apple April 7: N> Frederick= first observed. (K. Yoder).

APPLE SCAB (Venturia inaequalis) - NEW HAMPSHIRE - County= status in apple orchards: Strafford and Rockingham= about 20% of spores discharged, could become serious if wet weather persists and treatments not applied on schedule. (Fisher).

INSECTS

CODLING MOTH (Laspeyresia pomonella) - NEW YORK - District> County= adult in pheromone trap May 11: SE> Ulster= first found. (R.W. Weires).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - OHIO - District> County= males in pheromone traps May 5-12: NE> Wayne= 109 and NC> Ashland= 63; heavy decrease from May 2. (F. Hall).

OBLIQUEBANDED LEAFROLLER (Choristoneura rosaceana) - NEW YORK - District> County= status on fruit trees: W> Ontario= "hotspots" noted (R. Norton), also in western Ontario region (R. Pease).

LESSER PEACHTREE BORER (Synanthedon pictipes) - KENTUCKY - First adults of season. District> County= adults in pheromone traps: C> Jefferson= at Louisville, May 8, and Bluegrass> Fayette= at Lexington, May 11. (D.A. Potter).

PLUM CURCULIO (Conotrachelus nenuphar) - INDIANA - District> County= adults on apricots as of May 14: EC> Delaware= punctured one-third of fruits. (D. Matthew).

PEAR PSYLLA (Psylla pyricola) - NEW HAMPSHIRE - County= eggs on pear trees May 1: Strafford and Rockingham= hatch began, continuing since May 1. (Eaton).

WHITE APPLE LEAFHOPPER (Typhlocyba pomaria) - NEW YORK - Area> status: W> first hatch of overwintered eggs throughout area. (J. Leeper).

SAN JOSE SCALE (Quadraspidiotus perniciosus) - NEW YORK - District> County= males in pheromone traps May 10: SE> Ulster= first captured. (R.W. Weires).

EUROPEAN APPLE SAWFLY (Hoplocampa testudinea) - NEW YORK - Area> adults April 28 to May 5: Hudson Valley> began flying. (J. Leeper).

A CICADA (Platypedia areolata) - IDAHO - District> County= adults on apple and other shrubs May 5: N> Clearwater= more abundant than in previous years, damage heavy from egg laying at Orofino. (N.D. Fitzsimmons, H.W. Homan).

PECAN NUT CASEBEARER (Acrobasis nuxvorella) - TEXAS - Counts on pecans May 2-9 (J.W. Stewart et al.):

District> County	Status	City
South Texas> Erio	20% clusters with eggs	Pearsall
Edwards Plateau> Uvalde	eggs and damage 8.3%	Uvalde
Edwards Plateau> Tom Green	heavy	San Angelo
Edwards Plateau> Tom Green	some flagging	San Angelo
East Texas, North> Anderson	no flagging	Palestine
SC> Caldwell	some flagging	Luling
SC> Bastrop	eggs 1 per 250 clusters	Bastrop

Current pecan nut casebearer activity predictions based on temperature model with real time temperatures up to May 14 (J.A. Jackman). See CPPR 5(15):283 for details.

District> County	10% adult emergence	First significant nut entry	City
Southern High Plains> Lubbock	May 15	May 26	Lubbock
Southern High Plains> Midland	May 14	May 24	Midland
Northern High Plains> Potter	May 29	Jun 8	Amarillo
Northern High Plains> Dallam	May 31	Jun 11	Dalhart
Southern Low Plains> Taylor	May 7	May 18	Abilene
Northern Low Plains> Childress	May 15	May 26	Childress
Northern Low Plains> Wichita	May 14	May 24	Wichita Falls
South Texas> Jim Wells	Apr 22	May 2	Alice
South Texas> La Salle	Apr 22	May 2	Cotulla
Trans-Pecos> Brewster	May 11	May 22	Alpine
Trans-Pecos> El Paso	May 11	May 21	El Paso
Trans-Pecos> Pecos	May 8	May 19	Fort Stockton
Trans-Pecos> Presidio	May 19	May 29	Presidio
Trans-Pecos> Winkler	May 8	May 18	Wink
SC> Travis	Apr 27	May 8	Austin
SC> Bexar	Apr 28	May 8	San Antonio
Upper Coast> Jefferson	May 1	May 11	Beaumont
Upper Coast> Galveston	May 1	May 11	Galveston
Upper Coast> Harris	Apr 27	May 7	Houston
Upper Coast> Victoria	Apr 28	May 8	Victoria
Lower Valley> Cameron	Apr 19	Apr 29	Brownsville
Lower Valley> Hidalgo	Apr 17	Apr 26	McAllen
East Texas, North> Panola	Jun 12	Jun 24	Clayton
East Texas, North> Gregg	May 10	May 20	Longview
East Texas, South> Brazos	May 5	May 15	College Station
East Texas, South> Angelina	May 7	May 17	Lufkin
Coastal Bend> Nueces	Apr 21	May 1	Corpus Christi
Blacklands> Tarrant	May 9	May 19	Fort Worth
Blacklands> Dallas	May 5	May 15	Dallas
Blacklands> McLennan	May 7	May 17	Waco
Edwards Plateau> Val Verde	Apr 26	May 6	Del Rio
Edwards Plateau> Kimble	May 6	May 16	Junction
Edwards Plateau> Tom Green	May 7	May 17	San Angelo
Cross Timbers> Palo Pinto	May 12	May 23	Mineral Wells

SMALL FRUITS

INSECTS

EASTERN TENT CATERPILLAR (Malacosoma americanum) - MARYLAND - District> County= status on strawberry nursery stock week ending May 9: Eastern Shore> Wicomico= reached economic damage level, 12-ha field sprayed. (R. Hochmuth).

FOREST AND SHADE TREES

DISEASES

WHITE PINE BLISTER RUST (Cronartium ribicola) - See page 329.

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - INDIANA - New county record. District> County= collection data from Pinus sylvestris (Scotch pine): C> Hendricks= adult males and females collected near Brownsburg, May 14, 1980, by E. Huff, determined by J. Clark. (J. Clark).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (Entomophthora sp.) - KENTUCKY - District> County= status on Hypera postica (alfalfa weevil) larvae: C> Barren= began to enter epizootic stage on larvae in 2 untreated alfalfa fields May 8, prevalence varied widely. In 1 field, 81 of 176 larvae dead in 30 stem shake sample, 1 of 101 larvae dead in second field. By May 13, epizootic almost over in first field with few live larvae but not reached in second field. Bluegrass> Fayette= epizootic levels just reached. (G.L. Nordin).

INSECTS

ICHNEUMONID WASPS - KENTUCKY - First Bathyplectes anurus pupae of season. District> County= status: Bluegrass> Fayette= swept from alfalfa May 14. (P.E. Sloderbeck). OHIO - District> County= parasitism of Hypera postica (alfalfa weevil) larvae May 2: SE> Meigs= 50% by Bathyplectes anurus and 2% by Bathyplectes curculionis. (J. Flessel).

AN ICHNEUMONID WASP (Olesicampe benefactor) - WISCONSIN - New State record. District> County= collection data from Pristiphora erichsonii (larch sawfly): NC> Clark= reared from cocoons collected near Neillsville, August 22, 1979, by F. Morse, determined by D. Hall. Spread naturally into State from western border. (O.L. Lovett).

AN ICHNEUMONID WASP (Lophyroplectus oblongopunctatus) - WISCONSIN - New State record. District> County= collection data from Neodiprion sertifer (European pine sawfly): SE> Walworth= specimen recovered in May 1979 from larva collected near La Grange, October 1978 (date unknown). Collected and determined by M. Kraemer. Additional specimens recovered in 1979. Established as result of releases in 1977. (O.L. Lovett).

AN APHELINID WASP (Prospaltella lahorensis) - FLORIDA - Released at 1 or more locations in all counties during August to September in 1979. District> County= status on Dialeurodes citri (citrus whitefly): S> Hendry= colonization successful on whitefly-infested gardenia and citrus in release site at La Belle May 1. Colonization success will be checked at other release sites. (R.I. Sailer).

FEDERAL AND STATE PROGRAMS

DISEASES

OAT STEM RUST (Puccinia graminis f.sp. avenae) collected from oats in nurseries at Beeville and Giddings, TEXAS, April 30 to May 13. (McDaniel). Increased from a few pustules in early April to traces by early May in south Texas when oats matured. Losses will be light in Texas. Collected from Avena fatua (wild oat) in Yolo County, CALIFORNIA. First collection in 1980 from nursery at Beeville, Texas, identified as race NA 5. Isolates from collections at Nuevo Leon, MEXICO, identified as race NA 27. (A.P. Roelfs, D. Long).

No WHEAT STEM RUST (Puccinia graminis f.sp. tritici) reported in United States or in commercial fields in MEXICO by May 12. (A.P. Roelfs, D. Long).

For other rusts on small grains see page 317.

WHITE PINE BLISTER RUST (Cronartium ribicola) - WISCONSIN - Area> status on white pine: Statewide> yellow-orange aecia developed on infected branches and trunks. (O.L. Lovett).

INSECTS

GRASSHOPPERS - WASHINGTON - District> County= Melanoplus sanguinipes nymphs on rangeland grass: C> Yakima= at Moxee City and EC> Grant= at Othello. (D. Keim). NORTH DAKOTA - District> County= status: SE> Richland= light hatch as of May 5; NC> Bottineau= hatch progressed, 1st through 3rd instar nymphs noted, margin counts averaged 3 per 0.8 sq m, and field counts averaged less than 1 per 0.8 sq m; Pierce= hatch progressed, 1st through 3rd instar nymphs noted, margin counts averaged 2 per 0.8 sq m (up to 50 (averaged 8) per 0.8 sq m in margin of 1 field), field counts averaged up to 1 per 0.8 sq m, and damage light in marginal areas of barley; C> Eddy and EC> Griggs= hatch progressed, 1st through 3rd instar nymphs noted, and margin and field counts fewer than 1 (Melanoplus bivittatus dominant) per 0.8 sq m; and Traill= hatch progressed, 1st through 3rd instar nymphs noted, margin and field counts up to 1 (Melanoplus bivittatus dominant) per 0.8 sq m, and damage light on sunflowers, treatment applied. (C.G. Scholl).

NEBRASKA - District> County= newly hatched nymphs of mainly Ageneotettix deorum, Aulocara ellioti, Melanoplus confusus, and Melanoplus sanguinipes on rangeland: NW> Scotts Bluff, Morrill, and southern Sioux= averaged 8-10 per 0.8 sq m, hatch continued. Recent cold, wet weather seems not to have reduced populations significantly. (Hagen).

GYPSY MOTH (Lymantria dispar) - NEW YORK - District> County= larval status: S> Tompkins= hatching in Ithaca area (D. Zepp) and Long Island> Suffolk= active (T. Corell). NEW HAMPSHIRE - County= larval status week of May 4: Strafford= began hatch in woodland localities around Durham, hatch slow and irregular due to cool, wet weather, and larvae remain clustered on egg masses. (Morse, Johnson).

MORMON CRICKET (Anabrus simplex) - UTAH - District> County= status: C> Millard= heavy population near Fillmore in Fish Lake National Forest. (J.B. Karren).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States April 20 to May 2. Total of 11 cases confirmed in portion of eradication zone in Republic of Mexico. Total of 221 cases reported in Mexico south of eradication zone. Number of sterile flies released this period totaled 25,166,030, all in Texas. Total of 257,732,175 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

DETECTION

NEW STATE RECORDS

INSECTS

AN ICHNEUMONID WASP (Lophyoproctus oblongopunctatus) - WISCONSIN - Walworth County. (p. 328).

AN ICHNEUMONID WASP (Olesicampe benefactor) - WISCONSIN - Clark County. (p. 328).

NEW COUNTY RECORDS

DISEASES

PINWOOD NEMATODE (Bursaphelenchus lignicolus) - INDIANA - Hendricks. (p. 328).

INSECTS

A CHRYSOMELID BEETLE (Diabrotica virgifera zeae) - TEXAS - Goliad. (p. 315).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - MINNESOTA - See page 316.

OTHER NEW RECORDS

WEEDS

SPOTTED KNAPWEED (Centaurea maculosa) - CALIFORNIA - New township record. District> County= collection data from vacant lot: Sierra Mountains> Placer= at Kings Beach, May 5, 1980, by K. Stark, determined by D. Barbe. (D. Barbe).

CORRECTIONS

CPPR 5(15):285 - A SARCOPHAGID WASP (Sarcophaga sinuata) should read A SARCOPHAGID FLY (Sarcophaga sinuata).

CPPR 5(16):308 - SPRING CANKERWORM (Paleacrita vernata) - Line 9: Delete comma after Coffeyville. Independence is a city and not a county.

LIGHT TRAP COLLECTIONS

LIGHT TRAP COLLECTIONS	Temp- ature	Precip- itation	Type of trap	Crops														
				Apple orchard	Black berry	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	Black berry - other	
ARIZONA Mesa 5/5-11	25	BL	BL	25	2	9	5	247	1	10								
FLORIDA Gainesville 5/8-14	1	BL	BL	1	24													
KENTUCKY Henderson 5/7-13	0	BL	BL	0														
Lexington 5/9-14	2	BL	BL	2														
MISSISSIPPI Stoneville 5/9-15	85	2BL	25	85	4	1	6				16	98	1					
NEBRASKA Aurora 5/8-13	53	BL	21	53							6	131						
OHIO (Counties) Washington 5/7-14	22	2BL		22														
Wayne 5/8-14	5	3BL		5							1	57						
TEXAS College Station 5/8-14	1	BL	0	1	0	0	0				0	0			1	0	0	
WISCONSIN Lancaster 5/8-14	1	BL		1							0	0						
Mazomanie 5/8-14	0	BL		0							0	0						

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142888

PC

34/033NIDMDHYNN
C H HOFFMANN
6906 40TH AVE
HYATTSVILLE

R1 CPR-0001

MD 20782



ASB 823
2653

7/2



United States
Department of
Agriculture

**Animal and Plant
Health Inspection
Service**

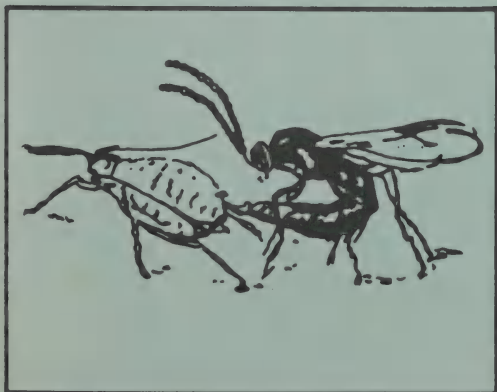
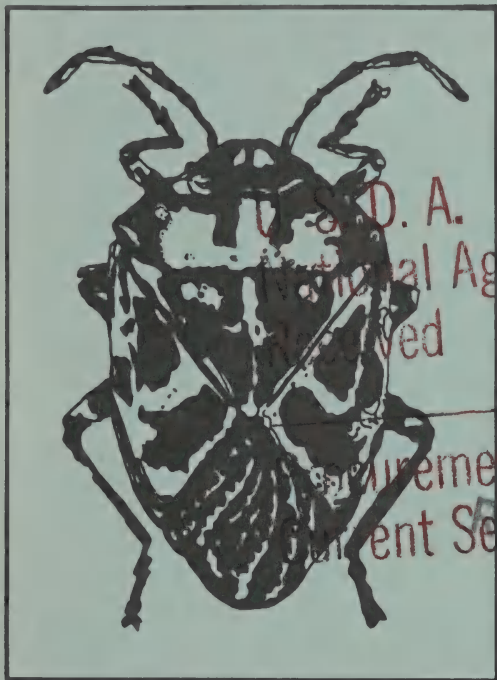
Plant Protection
and Quarantine

Cooperative Plant Pest Report

May 30, 1980

Vol. 5

No. 18



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

Cooperative Plant Pest Report supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

Correspondence should be directed to:

CPPR
New Pest Detection and Survey Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Building #1
Hyattsville, Maryland 20782

We cannot make address changes
unless we have your mailing code

COOPERATIVE PLANT PEST REPORT

HIGHLIGHTS

Current Conditions

CUTWORM problems on corn in Kentucky earlier than usual. (p. 335).

BARLEY YELLOW DWARF VIRUS increased on wheat in central and eastern areas of Kansas (p. 339) and affected barley and wheat in western area of Nevada (p. 341).

ALFALFA WEEVIL damage on alfalfa in central and south-central areas of Kansas and Kentucky. (p. 341-342).

Larvae of COLORADO POTATO BEETLE appeared on potatoes in Kansas and on tomatoes in Maryland. (p. 344).

Prediction

SPRING BLACK STEM AND LEAF SPOT may reappear on alfalfa regrowth in Kansas if cool weather persists. (p. 341).

Detection

For new county records see page 350.

Some First Occurrences of the Season

EUROPEAN CORN BORER adults on corn in Kansas and in traps in Kentucky. BLACK CUTWORM and STALK BORER larvae on corn in Maryland. TAKE-ALL on wheat in Kansas. ARMYWORM larvae on small grains in North Carolina. YELLOW LEAF BLOTCH and ALFALFA BACTERIAL WILT on alfalfa in Kansas. BOLL WEEVIL adult in Oklahoma. FIRE BLIGHT on apple in Kansas. WHITE APPLE LEAFHOPPER nymphs in Ohio. A SYCAMORE ANTHRACNOSE in Pennsylvania. The predator, a PHYTOSEIID MITE in apple orch hard in Ohio.

Special Report

Pests Not Known to Occur in the United States or of Limited Distribution. AVOCADO SEED MOTH (Stenoma catenifer Walsingham). (p. 352-355).

Reports in this issue are for the week ending May 23 unless otherwise indicated.

CONTENTS

Corn, Sorghum, Sugarcane		Deciduous Fruits and Nuts	
Insects.....	335	Diseases.....	345
		Insects.....	345
Small Grains		Small Fruits	
Diseases.....	337	Diseases.....	347
Insects.....	340	Insects.....	347
Forage Legumes		Ornamentals	
Diseases.....	341	Insects.....	347
Insects.....	341		
Soybeans		Forest and Shade Trees	
Insects.....	343	Diseases.....	348
Cotton		Household and Structures	
Insects.....	343	Insects.....	348
Potatoes, Tomatoes, Peppers		Stored Products	
Insects.....	344	Insects.....	348
General Vegetables			
Insects.....	345		
Beneficial Organisms and Their Enemies			
Diseases.....	348		
Insects.....	349		
Federal and State Programs			
Insects.....	350		
Detection.....	350		
Light Trap Collections.....	351		
Pest Not Known to Occur in the United States or of Limited Distribution			
AVOCADO SEED MOTH (<u>Stenoma catenifer</u> Walsingham).....	352		

CORN, SORGHUM, SUGARCANE

INSECTS

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - KANSAS - District> County= status on corn week ending May 16: SC> Stafford= some overwintered larvae pupated (R.J. Bauernfeind); currently, first of season, SE area> adults trapped and SC> Sedgwick and NE> Brown= adults trace (T.A. Mitchell et al.). KENTUCKY - First adults of season. District> County= adults in traps: Midwestern> Christian, Todd, and Bluegrass> Fayette= in blacklight trap; in latter county, first adult observed May 21, none in 2 pheromone traps May 20-21. (P.E. Sloderbeck).

BLACK CUTWORM (*Agrotis ipsilon*) - KANSAS - District> County= status on seedling corn week ending May 16: E area> usually scarce; SE> Bourbon= infestations heaviest, damage 2-5%; and EC> Franklin= larvae, 0.953-3 cm long, 10 per 100 plants. (G.E. Lippert, S.C. White). Males in pheromone traps May 8-16 (L.C. Bonczkowski et al.):

District> County	Number of adults		Number of nights	City
	Trap 1	Trap 2		
NE> Leavenworth	1	0	7	-
NE> Jefferson	5	4	7	Valley Falls
NE> Pottawatomie	0	1	5	Wamego
EC> Shawnee	0	0	5	Rossville
EC> Douglas	0	0	7	Baldwin
SE> Allen	4	5	8	Humboldt
SC> Harvey	3	0	7	Newton
SW> Finney	11	15	7	Garden City

Kansas - Currently on corn: SE area> damage usually scarce on corn [2-4 leaf], but Bourbon= increased cutting in 1 field where 9% of plants damaged (G.E. Lippert); E and NC areas> scarce; NE> Riley= larvae averaged 2 per 100 plants in 1 field; and Leavenworth= up to 3% plants cut (B.D. Hilbert et al.); and C> Barton= damage serious (G.E. Sanden).

KENTUCKY - District> County= black cutworm, BRISTLY CUTWORM (*Lacinipolia renigera*), and DARKSIDED CUTWORM (*Euxoa messoria*) status on corn: Midwestern> Todd= larvae continued to damage early corn, about 25% of fields in pest management program needed treatment; C> Hardin= 1 field at threshold, not treated to date; and Bluegrass> Anderson= 1 field above threshold. Problems earlier than normal. Although little adult black cutworm activity, specimens present in many problem fields. Summary of reports on cutworm problems (P.E. Sloderbeck):

District> County	Fields sampled	Fields treated
Midwestern> Christian	175	5
Midwestern> Henderson	117	0
Midwestern> Simpson	18	4
Midwestern> Todd	157	40
Midwestern> Union	-	4
C> Hardin	45	0

Black cutworm adults in pheromone traps May 14-20:

<u>District> County</u>	<u>Counts</u>	<u>Number of traps</u>
Midwestern> Christian	0	4
Midwestern> Henderson	0	4
Bluegrass> Fayette	0	2
C> Hardin	2	4

OHIO - District> County= males in number of pheromone traps: NC> Ashland= 2 in 4 traps April 30 to May 6, C> Knox= 5 in 4 traps April 30 to May 6, and NE> Wayne= 8 in 11 traps April 30 to May 7. (M. Casey). NORTH CAROLINA - Area> status on corn May 12-16: Coastal Plain> damage continued throughout area, up to 30% plants cut in isolated fields, damage above 5% not widespread, damage below 5% threshold level in 12 of 15 fields; currently: Statewide> damage continued in spot infestations. (T. Hunt). MARYLAND - First larvae of season. District> County= larvae per 30.5 row m of field corn week ending May 16: Eastern Shore> Worcester= heaviest, 24. (R. Hochmuth).

STALK BORER (*Papaipema nebris*) - MARYLAND - First of season. District> County= status on corn week ending May 16: NC> Carroll= larvae less than 10 days old, damaged foliage on 10-20% of plants, no effective chemical controls, and C area> recently reached economic levels in isolated fields, replanting necessary in some instances. (R. Hochmuth).

SOUTHERN CORN BILLBUG (*Sphenophorus callosus*) - NORTH CAROLINA - Adults continued to damage late-planted or slow-growing corn fields, heaviest in Southern Coastal Plain and Tidewater areas. Range expansion continued westward. District> County= status: Central Coastal> Johnston, Wilson, and Wayne= many economic infestations, damaged 60% of plants in 5 fields (4+ ha each) near Pine Level, Goldsboro, and Wilson. (W. Townsend, T. Hunt).

CORN FLEA BEETLE (*Chaetocnema pulicaria*) - KANSAS - District> County= status on corn week ending May 16: NE> Leavenworth and EC> Douglas= activity decreased on seedling corn, averaged 0.5-3.5 per plant with 1-2 leaves damaged last period, some seed fields treated in latter county (L.C. Bonczkowski); Douglas, Osage, Coffey, Anderson, and Franklin= mostly none but up to 1 per plant (S.C. White); Shawnee, Wabaunsee, Douglas, and NE> Leavenworth= mostly 0 to trace [2-5 leaf], up to 2 per plant in latter county (B.D. Hilbert). KENTUCKY - Area> adults on corn: Statewide> still heavy, 1-2 per plant in many fields. (P.E. Sloderbeck). MARYLAND - Area> status on corn [10-20 cm tall] week ending May 16: C> reported throughout, averaged 2-3 per plant, isolated heavier cases 4-6 per plant. Field corn expected to survive, no control recommended. (R. Hochmuth, J.L. Hellman).

A WIREWORM (*Melanotus cribulosus*) - MARYLAND - First of season. Area> status on corn week ending May 16: C> only spotty light populations reported. (R. Hochmuth).

GREENBUG (*Schizaphis graminum*) - KANSAS - District> County= status week ending May 16: EC> Chase, Osage, and Morris= scarce on seedling sorghum; SE> Cherokee, Labette, Montgomery, and Elk= increased flights to sticky traps last period

decreased this period (G.E. Lippert); NE> Leavenworth= winged greenbug adults none on seedling sorghum [2 leaf]; EC> Wabaunsee, NE> Riley, and Pottawatomie= mostly winged adults averaged 1-24 per plant in 3 seedling sorghum fields (B. D. Hilbert); EC> Osage= winged adults trace on seedling milo (S.C. White); NE> Riley= flights increased on sticky traps (K.O. Bell, Jr.); and Leavenworth= flying trace (L.C. Bonczkowski).

Kansas - Current greenbug status on seedling sorghum unless stated otherwise: From SC> Harvey, Sedgwick, and C> McPherson to NE> Riley and Nemaha= winged greenbugs heavy (H.L. Brooks et al.); Leavenworth= trace (L.C. Bonczkowski); Riley, SC> Reno, NC> Smith, Phillips, and NW> Norton= significant flights detected by sticky traps (S.R. Krueger et al.); SE corner of State> none; SE area> very light (G.E. Lippert et al.); EC> Douglas, NE> Jefferson, Leavenworth, and Jackson= very light (S.C. White et al.); Nemaha and Pottawatomie= 18-105 per plant [2-leaf] (B.D. Hilbert); C> Dickinson and Marion= winged greenbugs averaged 25-30 per corn plant [2-leaf] (H.L. Brooks); and EC> Morris= 8 per corn plant [3-leaf] in eastern area (K.O. Bell, Jr.).

CHINCH BUG (Blissus leucopterus leucopterus) - OKLAHOMA - District> County= status on corn week ending May 16: EC> Adair= heavy, destroyed 2-ha field. (D.C. Arnold). KANSAS - District> County= status on seedling corn week ending May 16: SE> Labette= adults few in about 24 outer rows adjacent to wheat field in northern area and Neosho= situation similar last period but otherwise scarce in area. (G.L. Kilgore).

SMALL GRAINS

DISEASES

WHEAT LEAF RUST (Puccinia recondita f.sp. tritici) - KANSAS - District> County= status on wheat: SE> Crawford= in 1 field. Little damage expected this season due to late appearances. (T. Sim, IV).

SPECKLED LEAF BLOTCH (Septoria tritici) - INDIANA - Severity light on wheat in southwestern area May 4-10, prevalence and severity light in northeastern area May 11-17, wheat surveyed in individual commercial fields. (R.A. Schall).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host stage</u>
May 4-10:			
WC> Parke	none seen	-	stem elongation
WC> Clay	5	trace	stem elongation
WC> Putnam	none seen	-	stem elongation
SW> Greene	3	trace	stem elongation
SW> Greene	1	trace	stem elongation
SW> Daviess	10	trace	stem elongation
SW> Knox	50	6	stem elongation
SW> Gibson	none seen	-	stem elongation
SW> Vanderburgh	5	trace	stem elongation
SW> Warrick	1	trace	stem elongation
SW> Spencer	1	trace	stem elongation
SW> Dubois	none seen	-	stem elongation
SC> Lawrence	3	trace	stem elongation
C> Morgan	trace	trace	tillering

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity (%)</u>	<u>Host stage</u>
May 11-17:			
NC> Wabash	none seen	-	stem elongation
NC> Kosciusko	none seen	-	stem elongation
NC> Elkhart	none seen	-	stem elongation
NE> Huntington	none seen	-	stem elongation
NE> Whitley	8	trace	stem elongation
NE> Noble	1	trace	stem elongation
NE> Steuben	none seen	-	stem elongation
NE> De Kalb	none seen	-	stem elongation
NE> Allen	none seen	-	stem elongation
NE> Allen	none seen	-	stem elongation
NE> Adams	none seen	-	stem elongation
NE> Adams	trace	trace	stem elongation
EC> Jay	33	2	stem elongation
EC> Blackford	10	trace	stem elongation
C> Grant	none seen	-	stem elongation

KANSAS - Speckled leaf blotch common on wheat week ending May 16; currently increased in eastern area. (T. Sim, IV).

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity</u>	<u>Host stage</u>
May 10-16:			
SE> Butler	10-80	light	heading
SE> Cowley	80-100	moderate	heading
SC> Sumner	100	light	heading
SC> Sedgwick	100	light	heading
SC> Harvey	100	moderate	heading
EC> Osage	trace	light	heading
EC> Douglas	none seen	-	flag leaf expanded

May 17-23:			
NC> Washington	30	light	heading
EC> Lyon	5	light	flower
EC> Linn	trace	light	flower
SE> Greenwood	10	light	flower
NE> Doniphan	100	moderate	flower
NE> Brown	100	moderate	heading
NE> Pottawatomie	trace	light	heading
NE> Nemaha	50-100	moderate	heading
NE> Jackson	80	moderate	flower
NE> Atchison	90	moderate	flower

WHEAT POWDERY MILDEW (*Erysiphe graminis* f.sp. tritici) - KANSAS - Status on wheat week ending May 16 (T. Sim, IV):

<u>District> County</u>	<u>Prevalence</u>	<u>Severity</u>	<u>Host stage</u>
SE> Cowley	trace	light	heading
EC> Douglas	trace	light	flag leaf expanded
EC> Osage	trace	light	heading
EC> Anderson	trace	light	heading

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - KANSAS - New county record. District> County= collection data from wheat: NE> Doniphan= trace in field at Fanning, May 19, 1980, collected and determined by T. Sim, IV. Appeared most serious wheat disease in southern-central area week ending May 16. Wheat [heading] surveyed May 10-23. (T. Sim, IV):

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity</u>
May 10-16:		
SE> Butler	4	moderate
SE> Cowley	2	moderate
SC> Sumner	trace to 8	moderate
SC> Sedgwick	trace to 5	moderate
SC> Harvey	trace to 2	moderate
May 17-23:		
NE> Brown	trace to 2	light
NE> Marshall	10	light

TAN SPOT (Pyrenophora trichostoma) - KANSAS - Common on wheat week ending May 16 (T. Sim, IV):

<u>District> County</u>	<u>Prevalence (%)</u>	<u>Severity</u>	<u>Host stage</u>
SE> Butler	trace	light	heading
SE> Cowley	100	moderate	heading
SC> Sumner	75	moderate	heading
SC> Sedgwick	100	moderate	heading
SC> Harvey	80	moderate	heading
EC> Osage	none seen	-	heading
EC> Douglas	trace	light	flag leaf expanded

TAKE-ALL (Gaeumannomyces graminis var. tritici) - KANSAS - First of season. District> County= prevalence on wheat week ending May 16: SC> Barber= trace in 1 field. (T. Sim, IV).

LOOSE SMUT (Ustilago nuda) - KANSAS - District> County= prevalence on wheat week ending May 16: SC> Sumner= trace in 1 field. (T. Sim, IV).

WHEAT DOWNY MILDEW (Sclerophthora macrospora) - KANSAS - District> County= prevalence on wheat [heading] week ending May 16: SC> Sedgwick and Harvey= trace in single fields. (T. Sim, IV).

BARLEY YELLOW DWARF VIRUS - NEVADA - See CORN LEAF APHID (Rhopalosiphum maidis) on page 341. KANSAS - First of season. District> County= prevalence on wheat week ending May 16: SE> Cowley and SC> Sedgwick= trace in single fields [heading]; currently: C and E areas> increased due to recent aphid vector activity. (T. Sim, IV).

WHEAT STREAK MOSAIC VIRUS - KANSAS - District> County= status on wheat week ending May 16: SW area> evident but not extensive, SW> Gray, Meade, and SC> Pawnee= reported; currently: NW area> appeared in several counties and SW area> reports continued. (T. Sim, IV).

INSECTS

ARMYWORM (*Pseudaletia unipuncta*) - OKLAHOMA - District> County= counts per 0.3 row m of wheat week ending May 16: NC> Grant, Garfield, Noble, and Kay= 0-2, heavier in few fields in latter county, up to 13. (D.C. Arnold). KANSAS - District> County= counts on wheat [host stage if given] in number of fields (f) week ending May 16: EC> Anderson= heaviest, 0.3-1.5 [heading] per 0.3 row m in 2f, none in 7f; Franklin, Coffey, and Osage= none in 7f (S.C. White); Wabaunsee one [heading] in 2f (B.D. Hilbert); NE> Riley, Marshall, Pottawatomie, and EC> Shawnee= none [last leaf just visible to boot] in 16f (K.O. Bell, Jr.).

ARKANSAS - District> County= armyworm larvae per 0.09 sq m of wheat week ending May 16: SE> Chicot and Desha= 15, heaviest, but averaged 2-3 in most fields. (M. Wall). NORTH CAROLINA - First of season. District> County= status on small grains, mostly wheat, week ending May 16: Central Coastal> Beaufort= damage reported, about 190 ha treated. Damage expected next 2 periods in Tidewater counties. Adults emerged from some small grain fields and laying eggs, development time of larvae will be too long for damage to occur from these larvae on small grains during 1980. (H. Riddick, T. Hunt).

GREENBUG (*Schizaphis graminum*) - TEXAS - Counts per 0.3 row m of small grains May 12-16 (E.P. Boring, III):

District> County	Counts
Cross Timbers> Archer	up to 1
Southern Low Plains> Baylor	up to 1
Northern Low Plains> Foard	up to 1
Northern Low Plains> Wichita	up to 1
Northern Low Plains> Wilbarger	up to 1
Trans-Pecos> El Paso	0-5
Trans-Pecos> El Paso	light

OKLAHOMA - District> County= greenbug on wheat week ending May 16: NC> Grant, Garfield, Noble, and Kay= 2-200 per 0.3 row m in most fields checked; above counties, NC> Major, and WC> Blaine= heavier in few grazed out fields that will be plowed after grazing, damage not economic; and Panhandle> Cimarron= still light. (D.C. Arnold).

KANSAS - District> County= greenbug status week ending May 16: SC> Reno, Harvey, C> McPherson, Saline, Dickinson, EC> Geary, NE> Riley, Marshall, and Pottawatomie= damage serious to mostly thin, short wheat and oats in parts of scattered fields and possibly in some adjacent counties; Riley, Marshall, and Pottawatomie= populations decreased in southern counties, still increasing in some wheat and oats checked (D.E. Gates et al.); EC> Shawnee, Wabaunsee, Douglas, NE> Leavenworth, EC> Osage, Coffey, Anderson, and Franklin= populations remained light in some wheat [last leaf just visible to head] fields (S.C. White et al.).

Kansas - Current greenbug status on wheat: SE and EC areas> scarce or light (G.E. Lippert et al.); NE> Riley, NC> Clay, Republic, Washington, Mitchell, Cloud, C> Lincoln, Ellsworth, Saline, and Dickinson= occasionally heavy in scattered fields or parts of fields with short plants and thin stands; Washington, Clay, Republic, Saline, and Dickinson= some serious damage, some fields plowed up. Populations appeared to be increasing in many fields, particularly in westernmost counties (L.C. Bonczkowski et al.).

CORN LEAF APHID (*Rhopalosiphum maidis*) - NEVADA - District> County= counts of this species, ENGLISH GRAIN APHID (*Macrosiphum avenae*), and an APHID (*Rhopalosiphum maidis*) on barley and wheat: W> Washoe= mostly first species 20-30 per leaf on scattered plants in experimental yield plots at Reno. Many plants affected by BARLEY YELLOW DWARF VIRUS. (R. Lauderdale).

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - ARKANSAS - District> County= counts per wheat head week ending May 16: SE> Jefferson= 0-12. (M. Wall).

CHINCH BUG (*Blissus leucopterus leucopterus*) - KANSAS - Scarce in southeastern area. (G.E. Lippert). District> County= adults per 0.3 row m of wheat [host stage if given] week ending May 16: EC> Wabaunsee= averaged 0-5 [boot to one-half head] (B.D. Hilbert); EC> Osage, Franklin, Coffey, and Anderson= none in 10 fields [one-fourth head to head] and none in 2 oat fields (S.C. White); and NE> Riley= commonly averaged 2-8 in thin, short fields in northern area, eggs trace (K.O. Bell, Jr.). Currently: NE> Brown= up to 4 (B.D. Hilbert); EC> Lyon= usually scarce, averaged 4 in 1 field of thin wheat (S.C. White, K.O. Bell, Jr.); NE> Riley, NC> Clay, Washington, and Mitchell= common, 1-2 in thin stands (K.O. Bell, Jr.).

FORAGE LEGUMES

DISEASES

SPRING BLACK STEM AND LEAF SPOT (*Phoma medicaginis*) - KANSAS - Area> status on alfalfa week ending May 16: Statewide> continued most prevalent alfalfa disease, defoliation in all areas. May reappear on second growth if cool weather persists. Currently continued to affect alfalfa statewide: NW> prevalence trace and E> prevalence 100%, defoliation common where prevalence near 50%. (T. Sim, IV).

ALFALFA DOWNY MILDEW (*Peronospora trifoliorum*) - KANSAS - District> County= prevalence on alfalfa [66 cm tall] week ending 16: SE> Cowley= trace in 1 field. (T. Sim, IV).

YELLOW LEAF BLOTCH (*Leptotrochila medicaginis*) - KANSAS - First of season. District> County= status on alfalfa: EC> Osage= trace in 1 field. (T. Sim, IV)

ALFALFA BACTERIAL WILT (*Corynebacterium insidiosum*) - KANSAS - First of season. District> County= status on alfalfa: SE> Allen= stand loss in 1 field. (T. Sim, IV).

INSECTS

ALFALFA WEEVIL (*Hypera postica*) - OKLAHOMA - District> County= status on alfalfa week ending May 16: NC> Grant, Garfield, Noble, and Kay= heavy, 0-6 per terminal, pupation increased; SW> Jackson, Tillman, Harmon, and Kiowa= infested 0-24% (averaged 14%) of terminals in 34 previously treated fields; and EC> Hughes= larvae averaged 50 per 10 sweeps. (D.C. Arnold).

KANSAS - District> County= status on alfalfa week ending May 16: SE and some EC counties> first cutting about 25% and 40% completed, respectively (G.L. Kilgore et al.); C> Ellis= larvae averaged 40-70 per sweep [46 cm tall], some serious terminal damage visible (T.L. Harvey); NE> Riley= counts remained lighter than in 1979 at research farm at Ashland (E. Sorenson), first cutting 5% completed (G.L. Kilgore et al.); C> McPherson, SC> Harvey, Stafford, Reno= damage trace to very severe, damaged fields cut early instead of treated; in latter county,

alfalfa weevil larvae averaged 100 per sweep before cutting in 1 field, no serious regrowth damage after field cut (R.J. Bauernfeind).

Kansas - Current alfalfa weevil status on alfalfa [bud]: SW area> counts highly variable from field to field, no "frosting" noted (M.L. Shuman); SW> Gray= heavy on some alfalfa (D.E. Mock); Ford, Kearny, and Hamilton= infestations heaviest, larvae 4-150 per sweep (M.L. Shuman); C> Barton= very heavy in some fields, some treating, some early cutting; Rush= damage light to moderate (G.E. Sanden); Lincoln, Saline, and Ellsworth= light "frosting" common in uncut fields, early cutting common; and Dickinson, NE> Riley, EC> Morris, Lyon, Wabaunsee, NE> Pottawatomie, NC> Clay, Cloud, Jewell, Smith, Phillips, and many other northeastern and east-central counties= no "frosting" in uncut fields (S.C. White et al.).

TENNESSEE - In western area, 90% of infested alfalfa tips have not been cut or sprayed. District> County= alfalfa weevil larvae per sweep of alfalfa and percent tips infested May 7-8: Western Rim> Robertson= 48.7 and 100%, silver tipping noted, parasites released in these fields, fields will not be sprayed; East Tennessee> Greene= 3.6 and 90%, no silver tipping, dead larvae 1.6 per stem in 30-stem sample, probably due to Entomophthora phytonomi (an insect fungus); and Sullivan= 9.9 and 95%, silver tipping noted. (M.E. Cooper). KENTUCKY - District> County= status on alfalfa: Statewide> larvae decreased, much of alfalfa damaged and treatment needed in most fields. (P.E. Sloderbeck).

<u>District> County</u>	<u>Fields treated</u>	<u>Fields sampled</u>
Midwestern> Christian	4	9
Midwestern> Henderson	1	3
Midwestern> Simpson	9	13
Midwestern> Todd	10	16
Central> Hardin	20	22

MARYLAND - District> County= alfalfa weevil status on forage legumes week ending May 16: Statewide area> adults emerged, larvae decreased due to pupation, NC> Carroll and Baltimore= 40-50% of fields treated to date. (R. Hochmuth).

ALFALFA LOOPER (Autographa californica) - NEVADA - First larvae of season. District> County= larvae on seed alfalfa week ending May 16: W> Humboldt= found. (L. Stitt).

VARIEGATED CUTWORM (Peridroma saucia) - KANSAS - District> County= status on alfalfa: SE area> light on stubble, no problems with regrowth (G.E. Lippert); EC> Douglas= larvae (0.64-3 cm long) averaged 6 per 0.8 sq m in 1 cut field, regrowth satisfactory (S.C. White).

BLUE ALFALFA APHID (Acyrtosiphon kondoi) - KANSAS - District> County= counts per stem of regrowth alfalfa [3 cm tall]: SE> Butler= 0-68 in 1 field, serious stunting in spots in same field earlier in season; heavy counts still limited to small areas, possible stunting of regrowth. (G.A. Salisbury).

PEA APHID (Acyrtosiphon pisum) - OKLAHOMA - District> County= status on alfalfa: SW> Caddo= mostly this species averaged 19,280 per 10 sweeps in 1 field May 8, 38 to 46-cm plants being destroyed; week ending May 16: NC> Grant, Garfield, Noble, and Kay= up to 60 per stem in scattered untreated fields, SW> Jackson, Harmon, Tillman, and Kiowa= 0-10 (averaged 3) per stem in previously treated fields, SC> Bryan= heavy, and NE> Washington= moderate. (D.C. Arnold).

KANSAS - District> County= status of pea aphid and BLUE ALFALFA APHID (*Acyrtosiphon kondoi*) on alfalfa week ending May 16: EC> Chase, Morris, and Osage= much tighter than farther south in eastern area (G.E. Lippert); and Wabaunsee= blue alfalfa aphid averaged 10 per sweep and pea aphid 90 per sweep [51 cm tall] (B.D. Hilbert).

POTATO LEAFHOPPER (*Empoasca fabae*) - OKLAHOMA - District> County= adults on alfalfa week ending May 16: SC> Carter, Murray, and Stephens= 1 occasionally taken. (D.C. Arnold).

BROWN WHEAT MITE (*Petrobia latens*) - NEVADA - District> County= status on seed alfalfa week ending May 16: W> Humboldt= damage heavy in spots, spread over 200 ha (L. Stitt) and Pershing= some damage in dry spots at Lovelock. (G. Munk).

SOYBEANS

INSECTS

BEAN LEAF BEETLE (*Cerotoma trifurcata*) - KENTUCKY - First adult of season. District> County= status on soybeans [unifoliolate] May 20: C> Marion= on some volunteer plants in unplanted field. (P.E. Sloderbeck).

COTTON

INSECTS

BOLL WEEVIL (*Anthonomus grandis grandis*) - TEXAS - Catches increased in Brazos Bottom and north-central areas. Punctured squares up to 26 per 100 plants in Lower Rio Grande Valley. (J.A. Jackman). Status on cotton April 30 to May 16 (J. Cocke et al.):

District> County	Status
Lower Valley> Cameron	0-2 per 100 plants
Lower Valley> Cameron	punctured squares 0-26 per 100 plants
Lower Valley> Hidalgo	0-2 per 100 plants
Lower Valley> Hidalgo	punctured squares 0-17 per 100 plants
Lower Valley> Willacy	0 per 100 plants
Lower Valley> Willacy	punctured squares 0-1 per 100 plants
Lower Gulf Coast	damaged squares up to 16%
Coastal Bend> Kleberg	0-1 per 100 plants
Coastal Bend> Kleberg	punctured squares 0-3%
Coastal Bend> Nueces & South Texas> Jim Wells	0-2 per 100 plants
Coastal Bend> Nueces & South Texas> Jim Wells	punctured squares 0-16%
Coastal Bend> San Patricio & Refugio	0-2 per 100 plants
Coastal Bend> San Patricio & Refugio	punctured squares 0-5%
Upper Coast> Fort Bend	2-37.75 in 4 traps per week
Upper Coast> Wharton	3-25 per trap per week
Brazos Bottom area	adults in 90% of traps
Blacklands> Ellis & Navarro	35.5-40 per trap per week
Edwards Plateau> Tom Green & Southern Low Plains> Runnels	0-10.9 per trap per week

OKLAHOMA - First boll weevil of season. District> County= adult in pheromone trap in cotton: SW> Harmon= taken May 14. (D.C. Arnold). TENNESSEE - District> County= adults in pheromone traps in cotton: West Tennessee> Madison, Hardeman, Fayette, Haywood, Gibson, Crockett, McNairy, Delta> Shelby, Dyer, Lauderdale, Tipton, and Central Basin> Lincoln= 114 traps set out, 1 adult trapped in latter county week ending May 9, and 1 trapped week ending May 16; and West Tennessee> McNairy= 1 adult trapped week ending May 16. (J. Locke et al.).

BOLLWORMS (*Heliothis* spp.) - TEXAS - Damage and numbers of BOLLWORM (*Heliothis zea*) and TOBACCO BUDWORM (*Heliothis virescens*) still light on cotton in Lower Rio Grande and Gulf Coast areas. Larvae up to 10 per 100 terminals in lower gulf coast area May 16. (J.A. Jackman). Counts on cotton May 16 (J. Cocke et al.):

District> County	Counts per 100 plants		
	Eggs	Larvae	Damaged squares
Lower Valley> Cameron	0-6	0-6	0-6
Lower Valley> Hidalgo	0-1	0-6	0-18
Lower Valley> Willacy	0-1	0-3	0-3
Lower Valley> Starr	3-5%	-	-
Coastal Bend> Kleberg	1-3	1-10	2-8%
Coastal Bend> Nueces & South Texas> Jim Wells	0-2	0-2	2-8%
Coastal Bend> San Patricio & Refugio	0-2	0-3	0-3%

COTTON FLEAHOPPER (*Pseudatomoscelis seriatus*) - TEXAS - Status on cotton May 16 (J. Cocke et al.):

District> County	Status
Lower Valley> Starr	5-35 per 100 plants
Lower Valley> Cameron	0-12 per 100 plants
Lower Valley> Hidalgo	0-8 per 100 plants
Lower Valley> Willacy	0-8 per 100 plants
Lower Gulf Coast	hatch 3-10%
Lower Gulf Coast	adults 5-10%
Coastal Bend> Kleberg	5-22 per 100 terminals
Coastal Bend> Nueces & South Texas> Jim Wells	0-9 per 100 terminals
Coastal Bend> San Patricio & Refugio	0-25 per 100 terminals

POTATOES, TOMATOES, PEPPERS

INSECTS

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - KANSAS - District> County= larvae on potatoes: NE> Riley= hatched. (K.O. Bell, Jr.). KENTUCKY - First of season. District> County= status: C> Marion= resting on weed in vacant field. (P.E. Sloderbeck). MARYLAND - Area> status on tomatoes week ending May 16: Eastern Shore> larvae emerged, populations still expected to rapidly build up throughout area. (R. Hochmuth).

BLACK CUTWORM (*Agrotis ipsilon*) - TENNESSEE - District> County= mostly this species and VARIEGATED CUTWORM (*Peridroma saucia*) on commercial bell pepper plantings week ending May 16: West Tennessee> McNairy= damage heavy. (J. Locke).

GENERAL VEGETABLES

INSECTS

ASPARAGUS BEETLE (*Crioceris asparagi*) - OHIO - First activity of overwintering adults on asparagus stalks [15-20 cm tall], adults 3 per 3.0 row m week ending May 9. (R.C. Graves).

DECIDUOUS FRUITS AND NUTS

DISEASES

FIRE BLIGHT (*Erwinia amylovora*) - KANSAS - First of season. District> County= prevalence on apple week ending May 16: SE> Labette, Cherokee, and Crawford= affected few trees. (T. Sim, IV).

A RING NEMATODE (*Criconemoides* sp.) - PENNSYLVANIA - District> County= population per 200 g of soil around apple April 28: NE> Wayne= 1. (T. Callahan).

INSECTS

CODLING MOTH (*Laspeyresia pomonella*) - SOUTH CAROLINA - District> County= averages per pheromone trap in apple orchards May 2-8 and May 9-15, respectively: NW> Oconee= 1.4 and 0.7 at Long Creek, 1.0 and 0 at Salem, and 1.3 and 0.1 at Mountain Rest, and Pickens= 1.3 and 1.0 at Six Mile. (B. Hallman et al.). VIRGINIA - District> County= adults in pheromone traps May 19: N> Frederick= 1. (L. Cobb). INDIANA - First of season for county. District> County= adult in pheromone trap May 21: WC> Tippecanoe= 1. (R.W. Meyer).

ORIENTAL FRUIT MOTH (*Grapholitha molesta*) - SOUTH CAROLINA - District> County= averages per pheromone trap in apple orchards May 2-8 and May 9-15, respectively: NW> Oconee= 1.9 and 1.7 at Long Creek, 1.7 and 0 at Salem, and 1.3 and 1.6 at Mountain Rest, and Pickens= 3.3 and 1.7 at Six Mile. (B. Hallman et al.).

LESSER PEACHTREE BORER (*Synanthedon pictipes*) - SOUTH CAROLINA - District> County= males (average) per pheromone trap in orchards weeks ending May 9 and 16, respectively: WC> Edgefield, Saluda, and C> Lexington= 0-71 (25) and 0-287 (58). (B. Hallman et al.).

REDBANDED LEAFROLLER (*Argyrotaenia velutinana*) - SOUTH CAROLINA - District> County= averages per pheromone trap in apple orchards May 2-8 and May 9-15, respectively: NW> Oconee= 1.6 and 0 at Long Creek, 0 and 0 at Salem, and 0.3 and 0 at Mountain Rest, and Pickens= 0.3 and 0 at Six Mile. (B. Hallman et al.). VIRGINIA - District> County= adults in pheromone traps May 19: N> Frederick= 2. (L. Cobb).

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - PENNSYLVANIA - District> County= larvae on *Prunus serotina* (black cherry) April 28: C> Dauphin= heavy on 1 ha, damage 50%. (J. Quimby).

WHITE APPLE LEAFHOPPER (*Typhlocyba pomaria*) - OHIO - District> County= overwintered eggs week ending May 9: C> Fairfield= hatch began, first nymph seen May 6. (R.P. Holdsworth).

EUROPEAN RED MITE (*Panonychus ulmi*) - OHIO - District> County= larvae on Red Delicious apple trees [60% full bloom]: C> Fairfield= 0.057 per leaf in research orchard, May 6 (R.P. Holdsworth), and NE> Wayne= 30% of eggs in insectary hatched May 7 (F. Hall). MAINE - County= status week ending May 16: Kennebec= early hatch started, hatch will rapidly increase in Monmouth area with continued warm weather, hatching 5 days later than in 1979. (A. Gall).

PECAN NUT CASEBEARER (*Acrobasis nuxvorella*) - TEXAS - Status on pecans May 13-20 (C.L. Cole, J.N. Cooper):

District> County	Status	City
SC area	emergence late	-
SC> Medina	eggs 1-2%	-
East Texas, North> Anderson	eggs 4%	Palestine
SC> Caldwell	eggs 4.8%	Luling
SC> Caldwell	nut entry 6.2%	Luling
Upper Coast> Fort Bend	nut entry 1 per 200 clusters	Richmond
Upper Coast> Fort Bend	eggs 2 per 200 clusters	Richmond
Edwards Plateau> Tom Green	egg laying 2%	San Angelo
Edwards Plateau> Uvalde	eggs 19%	-
Edwards Plateau> San Saba	entries 2 per 500 clusters	San Saba

Pecan nut casebearer activity predictions based on temperature model with real time temperatures up to May 20. (J.A. Jackman). See CPPR 5(15):283 for details.

District> County	10% adult emergence	First significant nut entry	City
Southern High Plains> Lubbock	May 16	May 28	Lubbock
Southern High Plains> Midland	May 14	May 25	Midland
Northern High Plains> Potter	May 31	Jun 10	Amarillo
Northern High Plains> Dallam	Jun 3	Jun 13	Dalhart
Southern Low Plains> Taylor	May 7	May 18	Abilene
Northern Low Plains> Childress	May 15	May 27	Childress
Northern Low Plains> Wichita	May 14	May 25	Wichita Falls
South Texas> Jim Wells	Apr 22	May 2	Alice
South Texas> La Salle	Apr 22	May 2	Cotulla
Trans-Pecos> Brewster	May 11	May 22	Alpine
Trans-Pecos> El Paso	May 11	May 22	El Paso
Trans-Pecos> Pecos	May 8	May 19	Fort Stockton
Trans-Pecos> Presidio	May 19	May 29	Presidio
Trans-Pecos> Winkler	May 8	May 19	Wink
SC> Travis	Apr 27	May 8	Austin
SC> Bexar	Apr 28	May 8	San Antonio
Upper Coast> Jefferson	May 1	May 11	Beaumont
Upper Coast> Galveston	May 1	May 11	Galveston
Upper Coast> Harris	Apr 27	May 7	Houston
Upper Coast> Victoria	Apr 28	May 8	Victoria
Lower Valley> Cameron	Apr 19	Apr 29	Brownsville
Lower Valley> Hidalgo	Apr 17	Apr 26	McAllen
East Texas, North> Panola	Jun 14	Jun 25	Clayton

District> County	10% adult emergence	First significant nut entry	City
East Texas, North> Gregg	May 10	May 21	Longview
East Texas, South> Brazos	May 5	May 15	College Station
East Texas, South> Angelina	May 7	May 17	Lufkin
Coastal Bend> Nueces	Apr 21	May 1	Corpus Christi
Blacklands> Tarrant	May 9	May 19	Fort Worth
Blacklands> Dallas	May 5	May 15	Dallas
Blacklands> McLennan	May 7	May 17	Waco
Edwards Plateau> Val Verde	Apr 26	May 6	Del Rio
Edwards Plateau> Kimble	May 6	May 16	Junction
Edwards Plateau> Tom Green	May 7	May 18	San Angelo
Cross Timbers> Palo Pinto	May 12	May 23	Mineral Wells

OKLAHOMA - District> County= pecan nut casebearer status in pecan shoot: C> Lincoln= first pupa of overwintering generation noted May 10. (D.C. Arnold).

PECAN LEAF PHYLLOXERA (*Phylloxera notabilis*) - OKLAHOMA - First of season. District> County= average per leaf on pecan week ending May 16: SW> Tillman= 10 on 1 tree. (D.C. Arnold).

WINTER MOTH (*Operophtera brumata*) - OREGON - County= larvae in drop pans in filbert orchard May 12: Clackamas= spinning down for summer pupation near Wilsonville. (D. Kimberling).

SMALL FRUITS

DISEASES

DAGGER NEMATODES (*Xiphinema* spp.) - PENNSYLVANIA - District> County= counts per 100 cc of soil in raspberry May 7: SE> Montgomery= 10. (D.T. Ware).

INSECTS

MEADOW SPITTLEBUG (*Philaenus spumarius*) - OHIO - District> County= nymphs on strawberry bud clusters [one-tenth bloom] May 7: C> Franklin= 4 or 5 on 50% of 'Early Glow' clusters, sharp increase where nymphs 0.016 per leaf in field April 30. (R.W. Wadleigh).

ORNAMENTALS

INSECTS

A DIASPIDID SCALE (*Abgrallaspis cyanophylli*) - FLORIDA - New county record. District> County= collection data from *Ilex opaca* (American holly) plant: NW> Escambia= adults collected in park at Century, May 9, 1980, by D. Reese, E. Graham, and R. Clark, determined by A.B. Hamon. Plant growing in wild. (D. Reese et al.).

A DIASPIDID SCALE (*Diaspidiotus liquidambaris*) - FLORIDA - New county record. District> County= collection data from *Liquidambar styraciflua* (sweetgum) plant: NW> Escambia= adults moderate near Walnut Hill, May 7, 1980, collected by D. Reese, determined by A.B. Hamon. Plant growing in wild. (D. Reese).

A DIASPIDID SCALE (Velataspis dentata) - FLORIDA - New county record. District> County= collection data from Persea borbonia (redbay) plant: NW> Escambia= adults collected near Barrineau Park, May 7, 1980, by D. Reese, determined by A.B. Hamon. Plant growing in wild. (D. Reese).

A PSYLLID (Gyropsylla ilicis) - FLORIDA - New county record. District> County= collection data from Ilex vomitoria (yaupon) plants: NW> Escambia= immatures collected on leaves in park at Century, May 6, 1980, by D. Reese, determined by F.W. Mead. Plants growing in wild. (D. Reese).

FOREST AND SHADE TREES

DISEASES

A SYCAMORE ANTHRACNOSE (Gnomonia platani) - PENNSYLVANIA - First of season. District> status on Platanus occidentalis (American sycamore) May 9: SC> generally damaged 23 cm of terminal growth throughout area. (B. Tower).

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - FLORIDA - New county records. District> County= collection data of larvae and adults from dead pines: NE> Suwannee= moderate on Pinus palustris (longleaf pine), April 8, 1980; Madison and Lafayette= moderate on Pinus elliotii (slash pine), April 10; and NW> Liberty= moderate on slash pine, April 9. All collected by R.P. Esser, and K.J. Harkcom and determined by R.P. Esser. All trees at natural stands along roadside. (R.P. Esser, K.J. Harkcom).

HOUSEHOLDS AND STRUCTURES

INSECTS

BROWNBANDED COCKROACH (Supella longipalpa) - NEVADA - New county record. District> County= collection data: W> Ormsby= collected in apartment at Carson City, May 9, 1980, by A.N. Harris, determined by R.C. Bechtel. (R.C. Bechtel).

STORED PRODUCTS

INSECTS

LESSER GRAIN BORER (Rhyzopertha dominica) - NEVADA - New county record. District> County= collection data from grain: S> Lincoln= collected at Caliente, May 12, 1980, by D. Bradfield, determined by R.C. Bechtel. (R.C. Bechtel).

BENEFICIAL ORGANISMS & THEIR ENEMIES

DISEASES

AN INSECT FUNGUS (Cordyceps sp.) - KANSAS - District> County= status on BRONZED CUTWORM (Nephelodes minians) from bluegrass sod April 15: EC> Johnson= infected larvae. (K.O. Bell, Jr.).

CHALKBROOD (Ascosphaera apis) - OHIO - Area> status on Apis mellifera (honey bee) in April: Statewide> infected 1 of 4,361 colonies from 615 apiaries. (G. Rudloff).

AMERICAN FOULBROOD (*Bacillus larvae*) - OHIO - Area status on *Apis mellifera* (honey bee) in April: Statewide infected 25 of 4,361 colonies, 18 of 615 apiaries quarantined. (G. Rudloff).

INSECTS

ICHNEUMONID WASPS (*Bathyplectes* spp.) - OKLAHOMA - District County= percent *Hypera postica* (alfalfa weevil) larvae parasitized by *Bathyplectes curculionis* collected from alfalfa during peak larval period April 16 to May 10: Panhandle Beaver= 11%, Harper= 36%, NC Woodward= 14%, Major= 29%, Woods= 18%, C Payne= 21%, Pottawatomie= 46%, Canadian= 19%, Cleveland= 24%, Lincoln= 31%, Logan= 40%, Grady= 33%, Creek= 48%, NE Tulsa= 69%, Washington= 78%, Wagoner= 50%, WC Dewey= 16%, SW Caddo= 70%, Cotton= 9%, Greer= 1%, Kiowa= 5%, Tillman= 12%, Jackson= 20%, SC Carter= 60%, Jefferson= 35%, Murray= 23%, Marshall= 88%, Johnston= 49%, Stephens= 84%, and Garvin= 91%; statewide average 37.7%, slightly heavier than 31.3% average in 1979. (D.C. Arnold). INDIANA - Parasitism of reared *Hypera postica* (alfalfa weevil) larvae collected in alfalfa April 21-30 (parasitism estimates probably lower than actual due to mortality in rearing process) (R.W. Meyer):

District County	Number of weevils reared	Number of <i>Bathyplectes anurus</i>	Number of <i>Bathyplectes curculionis</i>	Parasitism (%)	Site
SW Sullivan	47	0	0	0	Phegley
SW Daviess	100	9	4	12	Schuetz
	76	1	4	6	Schuetz
SW Knox	51	0	2	4	Phegley
SW Spencer	29	4	2	17	Miller
	106	7	4	9	Miller
SW Dubois	19	3	2	21	Dilger
SC Harrison	36	43	0	54	Flock-P
	68	74	0	52	Flock-P
SC Washington	24	28	0	54	Ponsford

AN APHIDIID WASP (*Lysiphlebus testaceipes*) - OKLAHOMA - District County= percent parasitism of *Schizaphis graminum* (greenbug) on wheat week ending May 16: NC Grant, Garfield, Noble, and Kay= 10-95%. (D.C. Arnold). KANSAS - District County= status: NE Riley, NC Clay, Cloud, Mitchell, C Lincoln, Ellsworth, and Saline= always present but usually affecting only trace numbers of aphids on small grains; and Dickinson= parasitized about 25% of greenbugs in 1 wheat field. (K.O. Bell, Jr.).

AN APHIDIID WASP (*Aphidius* sp.) - OKLAHOMA - District County= percent parasitism of *Acyrtosiphon pisum* (pea aphid) on alfalfa week ending May 16: NC Grant, Garfield, Noble, and Kay= averaged about 10% in several fields. (D.C. Arnold).

A PHYTOSEIID MITE (*Amblyseius fallacis*) - OHIO - First of season. District County= counts per leaf of Red Delicious apple May 6: C Fairfield= 0.02, active on leaves. (R.P. Holdsworth).

FEDERAL AND STATE PROGRAMS

INSECTS

CEREAL LEAF BEETLE (Oulema melanopus) - KENTUCKY - District> County= mid-instar larvae on wheat: C> Marion= 2 in 1 field, no problems expected. (P.E. Sloderbeck).

GRASSHOPPERS - IDAHO - District> County= status May 14: SW> Washington= hatch began in Keithly Creek and Crane Creek areas. (R.J. Pollard). NEVADA - District> County= mostly 1st instar nymphs of Melanoplus sanguinipes on rangeland week ending May 16: W> Washoe and Humboldt= hatch underway in Crutcher Canyon and Rose Creek areas, respectively; some Oedaleonotus enigma enigma in latter area. (M. Larraneta, R. Rowe). KANSAS - Hatch not significant in most areas. District> County= status: EC> Lyon= heavy in spots in waste areas (G.L. Kilgore); SW> from Hamilton to Morton, and from Morton east to Clark= some significant hatching along field margins and on rangeland, hatch still very spotty, larvae (1st and 2nd instar) averaged 0-36 per 0.8 sq m (M.L. Shuman).

GYPSY MOTH (Lymantria dispar) - OHIO - District> County= status of caged egg masses May 6: NC> Ottawa= hatched. (K. Roach). PENNSYLVANIA - District> County= egg mass status May 3: C> Centre= 55% hatched in Patton Township. (M. Waldvogel, J. Lasota).

MORMON CRICKET (Anabrus simplex) - IDAHO - District> County= status May 14: SW> Washington= hatch began in Keithly Creek and Crane Creek areas. (R.J. Pollard).

SCREWORM (Cochliomyia hominivorax) - No cases reported from continental United States May 4-10. No cases confirmed in portion of eradication zone in Republic of Mexico. Total of 29 cases reported in Mexico south of eradication zone. Number of sterile flies released this period total 13,012,928, all in Texas. Total of 154,718,467 sterile flies released within eradication zone of Mexico. (J.E. Novy, M.E. Meadows).

DETECTION

NEW COUNTY RECORDS

DISEASES

CEPHALOSPORIUM STRIPE (Cephalosporium gramineum) - KANSAS - Doniphan. (p. 339).

PINEWOOD NEMATODE (Bursaphelenchus lignicolus) - FLORIDA - Suwannee, Liberty, Madison, and Lafayette. (p. 348).

INSECTS

BROWNBANDED COCKROACH (Supella longipalpa) - NEVADA - Ormsby. (p. 348).

DIASPIDID SCALES (Abgrallaspis cyanophylli, Diaspidiotus liquidambaris, and Velataspis dentata) - FLORIDA - Escambia. (p. 347 and 348).

LESSER GRAIN BORER (Rhyzopertha dominica) - NEVADA - Lincoln. (p. 348).

PAVEMENT ANT (Tetramorium caespitum) - NEVADA - District> County= collection data: W> Ormsby= collected in building and on sidewalk at Carson City, May 7, 1980, by A.N. Harris, determined by R.C. Bechtel. (R.C. Bechtel).

LIGHT TRAP COLLECTIONS

	Temperature °C	Precipitation mm	Type of light	Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CALIFORNIA	12-32		BL	16																														
Belleta 5/18	18-37		BL	10																														
Manteca 5/19			BL	1																														
FLORIDA			BL	1																														
Gainesville 5/15-21			BL	4																														
INDIANA (County)			BL	9																														
Tippecanoe 5/21			BL	1																														
KANSAS			BL	127																														
Garden City 5/6-21			BL	14																														
Hays 5/15-19			BL	6																														
KENTUCKY			BL	0																														
Henderson 5/14-20			BL	22																														
Lexington 5/15-21			BL	13																														
NEBRASKA			BL	12																														
Aurora 5/14-21			BL	13																														
Clay Center 5/9-22			BL	0																														
TEXAS			BL	0																														
College Station 5/15-21			BL	12																														
VIRGINIA			BL	0																														
Painter 5/11-17			BL	0																														
WISCONSIN			BL	0																														
Lancaster 5/15-20			BL	0																														
Mazomanie 5/15-20			BL	0																														

PESTS NOT KNOWN TO OCCUR IN THE UNITED STATES
Or
Of Limited Distribution

AVOCADO SEED MOTH

Stenoma catenifer Walsingham
Lepidoptera: Stenomidae

ECONOMIC IMPORTANCE

This species is one of the most damaging avocado pests in many tropical and subtropical areas. One larva can destroy a fruit completely. Some avocado plantations in Mexico have experienced up to 94% fruit damage. An uninfested fruit often cannot be found on the market in Ecuador (Ebeling 1959, Busck 1919).



GENERAL DISTRIBUTION OF STENOMA CATENIFER

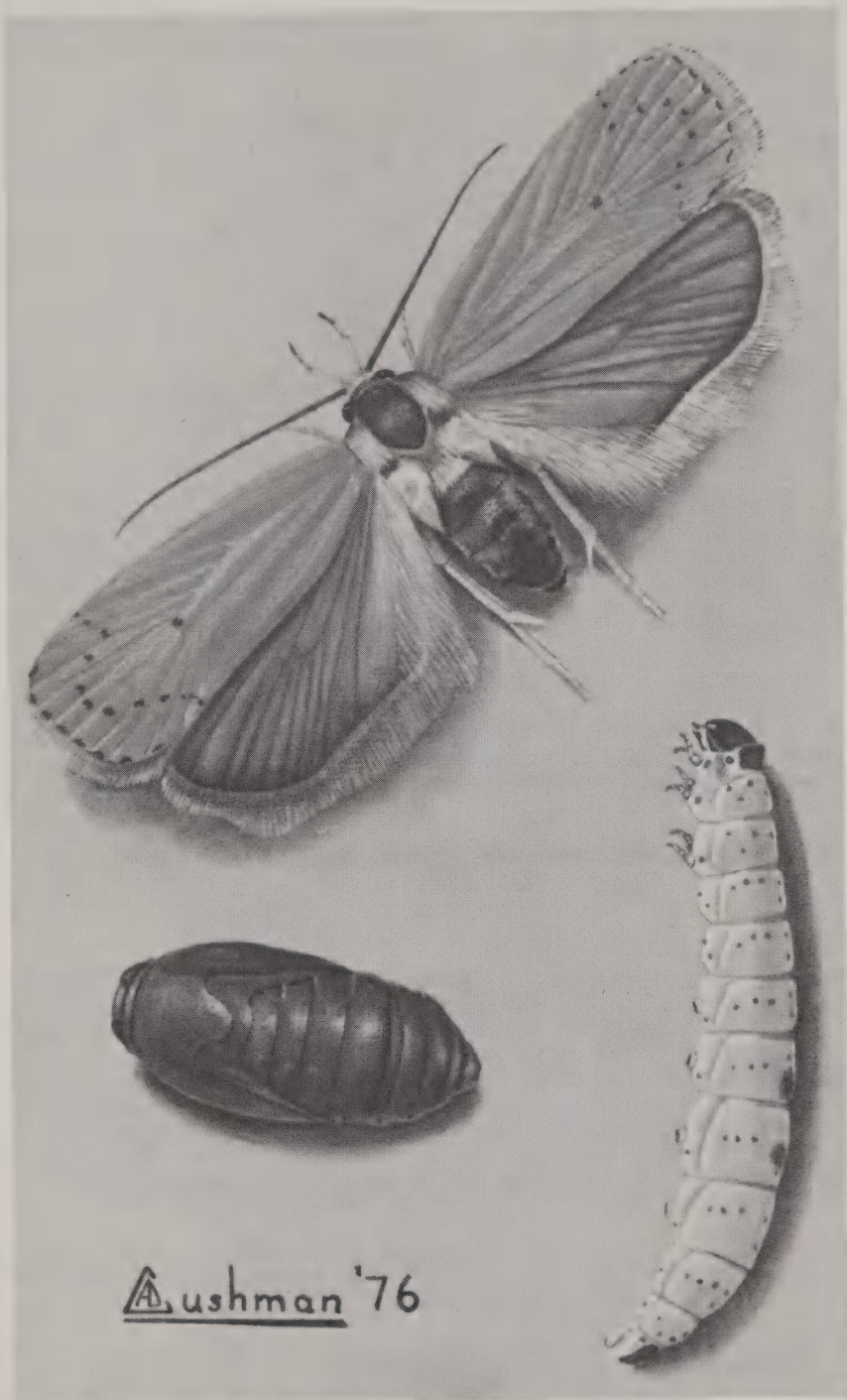
Throughout nearly all of the New World tropics. Also reported from Brazil, Central America, Colombia, Ecuador, Mexico, and Peru.

HOSTS

Persea americana (avocado), Persea schiedeana (coyo), wild Persea, and Beilschmedia spp. (Jaramilo 1976).

CHARACTERS

ADULT - Grayish brown, about 25 small dots in "S" pattern on each forewing. Wingspan about 2.5 cm. Body covered with straw-colored scales. On the posterior wings, the frenulum of the female has 3 long sclerotized spines, the male has one spine and a large lock of hair between the base of the costa and subcosta.



STENOMA CATENIFER

EGG - Light green when first laid, oval, 0.6 by 0.4 mm with corium transparent at first then cream colored. Corium rugose, reticulate with longitudinal grooves resembling irregular hexagons.

LARVA - Fully grown larval length 20-25 mm. Body creamy white when newly emerged, becoming light rose by the 3rd instar. The dorsal side becomes violet and the ventral side, greenish blue by the 5th instar. Head light brown, turning black by the 5th instar with blackish eyespots and mandibles. Thoracic shield light brown with darker brown anterior edge.

Body light fuscous with blackish brown tubercles, prolegs with complete circle of alternating long and short crochets, abdominal segment 8 with spiracles high up on dorsum, anal shield dark brown.

PUPA - Obtect, oval, female 7.8 by 3.4 mm; male 7.0 by 3.0 mm. Bluish green on anterior ventral part, becoming brilliant coffee amber in later development. (Jaramillo 1976, Ebeling 1959, Busck 1919).

CHARACTERISTIC DAMAGE

Larvae bore into terminal twigs often killing young trees. Their cutting of the stems or base of young fruit can result in fruit drop of a large part of the crop. Fruit is severely damaged by random tunneling, permitting loss of sap and invasion of pathogens (Ebeling 1959).

DETECTION NOTES

1. Watch for dead or dying twigs and early fruit drop.
2. Examine fruit (on or off the trees) for larval entrance and exit holes, and exuded frass. Cut fruit and look for larvae. Boil larvae in water until they swell up (about 1-5 minutes) and submit in 70% alcohol for identification.
3. Use blacklight traps near avocado trees because adults are nocturnal and attracted to light (Paddock 1976, Chu 1949).

BIOLOGY

Adults overwinter in soil or leaf litter under hosts, emerge in the spring, mate within a few days, and begin egg laying. Each female can lay 180-240 eggs which may be deposited individually on stems and other places nearby, but mostly in small crevices on the surface of fruit. Larvae hatch in 5-6 days and may tunnel as far as 25 cm into terminal twigs, but usually tunnel into the fruit pulp and feed on the seed. Larvae have 5 instars, develop in 21-28 days, tunnel out of the fruit, and then drop to the ground to pupate. The first signs of damage usually occur 1 month after the fruit forms, with the greatest severity occurring from May to August. The number of generations per year varies because fruit is necessary to complete the life cycle.

Natural enemies: A braconid wasp, Apanteles sp., helps to control this pest in Brazil. An ichneumonid wasp, Xiphosomella stenomae Cushman, is recorded as a parasite in the Panama Canal Zone (Ebeling 1959).

REFERENCES

- Busck, A. A microlepidopteron injurious to avocado. Proc. Entomol. Soc. Washington. 21(6):125-126; 1919.
- Chu, H.F. How to know the immature insects. Dubuque, Iowa: Wm. C. Brown Co.; 1949: 24-25.
- Ebeling, W. Stenoma moth. Subtropical fruit pests. Berkeley, California, Univ. of California, Division of Agricultural Sciences; 1959: 314-315.
- Jaramilo, E.A. Estudios sobre el burrenador del hueso pulpa del aguacate Stenoma catenifer Walsingham. Comision Nacional de Fruticultura, Bul. 14; 1976.
- Paddock, E.L. Avocado seed moth: Stenoma catenifer. State of California, Department of Food and Agriculture, Division of Plant Industry, Pest Detection Manual, Rev. D.T. 3:35; 1976.

METRIC CONVERSION

1 cm = 0.393701 in
1 m = 3.28084 ft = 1.09361 yd
1 km = 0.621371 mi
1 sq cm = 0.155000 sq in
1 sq m = 10.7639 sq ft = 1.19599 sq yd
1 ha = 2.47104 acres
1 sq km = 0.386101 sq mi
1 kg = 2.20462 lb
1 t (metric ton) = 1.10231 short ton
1 kg/ha = 0.892183 lb/acre
1 t/ha = 0.446091 ton/acre

UNITED STATES DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Hyattsville, Maryland 20782

Official Business
Penalty for Private Use \$300

NATIONAL AGRICULTURAL LIBRARY



1023142889

34/033NIDLANESR R1 CPR-0001

~~DR IVAN W KIRK ASST AD~~

USDA SER SR

P O BOX 19687 S REG RES CNTR

NEW ORLEANS

LA 70179

